

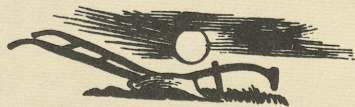
THE
CITY OF CALGARY
PAST · PRESENT
and
FUTURE



By
THOMAS H MAWSON & SONS

John Burns.

The EDITH and LORNE PIERCE
COLLECTION of CANADIANA



Queen's University at Kingston

To the Right Hon John Burns.
from the Author, as an
acknowledgement of obligation
& admiration.

Thomas A. Mason

22/4/1914

CALGARY

Dedicated to the Citizens of
Calgary
through their Chosen Representatives
His Worship The Mayor
The Commissioners and Members
of
the City Council



FRONTISPIECE :—THE CIVIC CENTRE AS IT MAY APPEAR MANY YEARS HENCE. (See Figs. 9-25, and 26.)

Thomas Hayton Mawson

CALGARY

A PRELIMINARY SCHEME
FOR CONTROLLING
THE ECONOMIC GROWTH
OF THE CITY

THOMAS H. MAWSON & SONS
City Planning Experts
LONDON LANCASTER
VANCOUVER & NEW YORK

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PROLOGUE

CITY PLANNING IS NOT THE ATTEMPT TO
PULL DOWN YOUR CITY AND REBUILD
IT AT RUINOUS EXPENSE. IT IS MERELY
DECIDING WHAT YOU WOULD LIKE TO
HAVE DONE WHEN YOU GET THE CHANCE,
SO THAT WHEN THE CHANCE DOES COME,
LITTLE BY LITTLE YOU MAY MAKE THE
CITY PLAN CONFORM TO YOUR IDEALS.

*(Speech delivered at Calgary
in the Autumn of 1912,
By Thomas H. Mawson, Hon. A.R.I.B.A.)*

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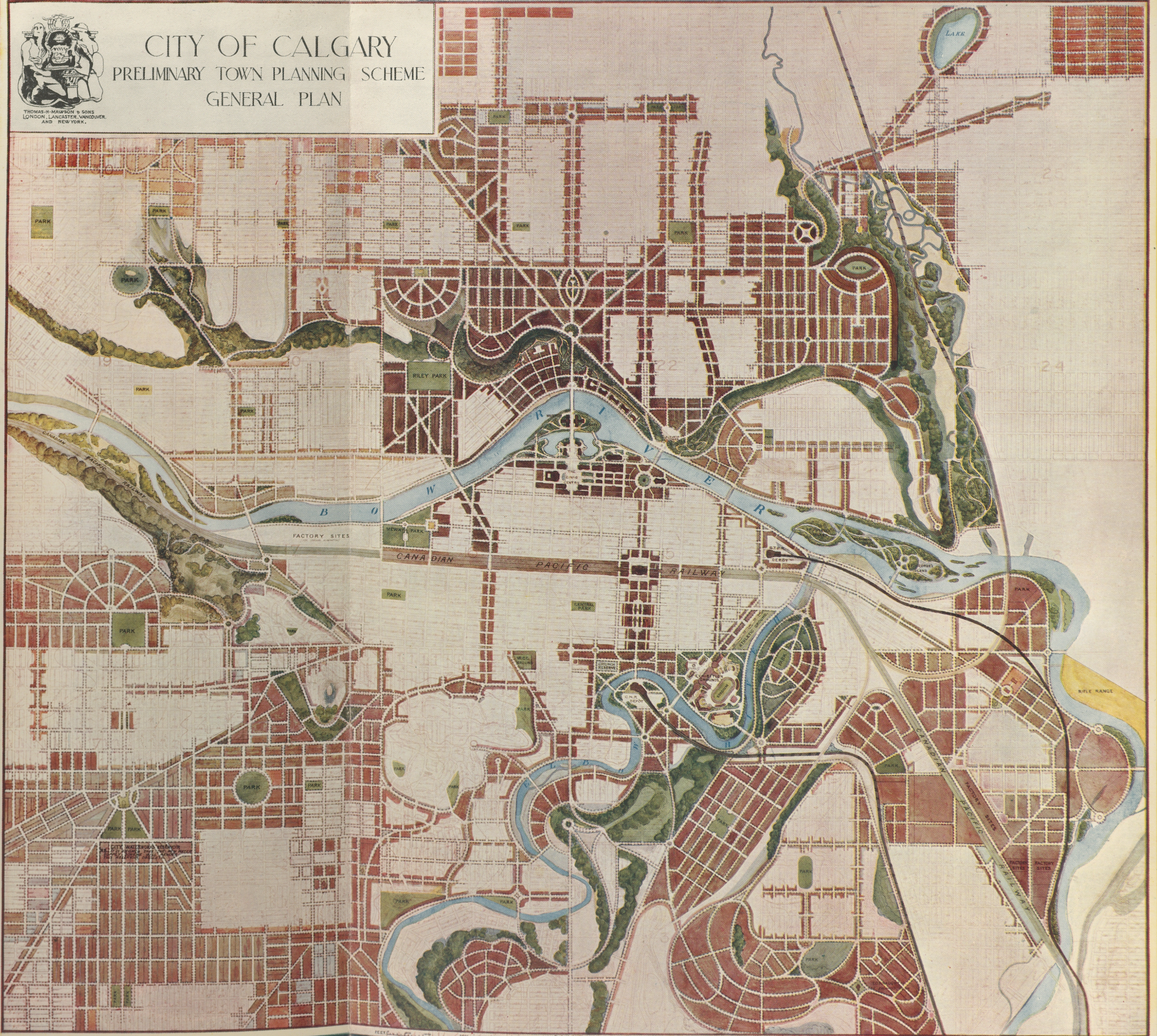


THOMAS H. MAWSON & SONS
LONDON, LANCASTER, VANCOUVER,
AND NEW YORK.

CITY OF CALGARY

PRELIMINARY TOWN PLANNING SCHEME

GENERAL PLAN



TO THE PRESIDENT AND MEMBERS OF THE CITY
PLANNING COMMISSION.

GENTLEMEN,

On finally looking through my plans before closing this report, I am more than ever conscious of a fact which has been patent all along, viz.:—That considered *in vacuo* some of them leave much to be desired. This is not because a very large amount of time and trouble and consideration have not been given to the subject of the re-planning and extension of Calgary, but because so much is already fixed and unalterable in your city plan, and thus an ideal lay-out is quite impossible. Viewed in relation to this fact, I think I may safely claim for them that they make the very most of the opportunity presented. All that can be done, and all that has been attempted in the present case, is to deal with conditions as they stand, and if I have erred on one side or the other, it has been in taking too great a liberty with already partly-developed areas.

In examining the plans it is also necessary to remember that they are preliminary, and make no attempt at finality. The relationship between them and the fully developed scheme to be based upon them is clearly indicated by a comparison of the Manchester and Connaught areas as shown on the general plan with the detailed plans for these two portions which we have included in our scheme. Before the task of city planning is completed it will be necessary that similar detailed plans shall be made for every other portion of your City, but this need only be done from time to time as they are called for, and as development proceeds, and, consequently, what at first sight may appear to be a stupendous task, will be accomplished so gradually that it will cause a burden to no one.

This being a preliminary report, no attempt has been made to settle small details. The aim has been rather to dig round about the subject and so promote a healthy interest in and discussion of the great question : What can City Planning do for us ? When you and your fellow citizens are satisfied as to the correct reply to be given to it, it will be time to proceed with that larger task for which we tendered our services as an alternative to the present one.

In placing this report in your hands I desire to acknowledge the great help rendered by all the members of the City Planning Commission, particularly the Executive Committee, and also by the Chiefs of the Police, Fire and Street Car Departments of your City who have all generously contributed to the preparation of the material on which my scheme is based.

The President of your City Planning Commission, William Pearce, Esq., D.L.S., has rendered invaluable service by the information which he has given concerning the environs of your City, and his excellent report on the provision of automobile roads, etc., round Calgary has been embodied in this volume practically *verbatim*.

Finally, my thanks are especially due to His Worship the Mayor, the City Commissioners, and the City Engineer, Mr. Craig, and also to Mr. G. Wray Lemon, the Secretary of the City Planning Commission, who all most ungrudgingly gave me their time and their best energies to make the collection of the data on which this report is based easy, and the information gathered reliable and authoritative.

This friendly spirit of sympathetic co-operation so freely manifested on the part of everyone whom I met in your City has given me the highest form of pleasure which is obtainable from any task—the happiness of feeling that I have, through its agency, made many firm and lasting friendships.

In reading the following report the question will naturally arise in the minds of the Committee: What are we to do first of all towards realising your proposals? In one sense the whole of the report is an answer to this question but, as it is intended for general and public distribution, we have preferred to supplement it by a communication of a more confidential nature which will be submitted to you in due course, and in which we have given you our views as to the lines on which the various authorities, such as the Railway Companies, the great Corporations, the Real Estate interests and the City Council, should be asked to co-operate with you, and the steps which should be taken to popularize the scheme.

Yours faithfully,

THOMAS H. MAWSON & SONS.

28, CONDUIT STREET,
LONDON, W.
April, 1914.



Fig. 2.—THIS VIEW IN ST. GEORGE'S ISLAND PARK SHOWS WHAT BEAUTIFUL FOLIAGE EFFECTS
ARE POSSIBLE IN CALGARY.

PART I.

INTRODUCTION

THE problem of the planning of a modern city is one which must appeal with overwhelming power to the imagination. It is not only a confessed attempt to influence its material growth and destiny through a long period of years, but must inevitably have its reflex action on the lives and the happiness of the citizens themselves and thus while, as we have said, it is a task which fires the imagination, it should also imbue the man who essays it with a deep and profound sense of responsibility. As that well-known writer and clear thinker, Oliver Wendell Holmes * has pointed out, we, the human inhabitants of this world, are first of all, an embodiment of all the principal characteristics of our ancestors, immediate and remote, and secondly, the reflex image of our surroundings and environment. The first of these factors in our being is fixed and unalterable except in so far as it is warped and influenced by the second and so, if it falls to our lot to have the glorious opportunity given to us to ameliorate the environment of our fellowmen, we have in our power all that it is possible to do on the material side for their welfare. This is why the planning of a city is a great responsibility as well as a great privilege, and I should be insensible to the larger aspects of my work if I did not realise that, in laying my plan for the future development of Calgary before you, I must give you my best and the best of those of your citizens who have so heartily collaborated with me, to produce a scheme which shall be worthy of the occasion and the opportunity.

This opportunity is perhaps in its way greater than has ever been before in the history of cities. Never before has there been such a phenomenal development and such rapid peopling of the hitherto waste places of the earth under the conditions provided and imposed by modern civilisation, as in the great West of Canada at the present time. Not only is this so, but Calgary stands right at the centre of this development. It is the key-note of the situation, and we feel that, on its success or failure will hang the success or failure of the whole of the territory so rich in every kind of material wealth which surrounds it on every side, stretching from the snow-capped Rocky Mountains on the one hand to Winnipeg on the other, and from Edmonton in the north to the border line of the Dominion on the south. This consideration gives to the town planning of Calgary a two-fold importance. First as to the result it will have to Calgary itself as a city, and secondly the moulding influence which it must have on the whole district for which your city stands as centre and virtually as capital. With regard to the first of these there can be no doubt that Calgary will grow in the future as it has grown in the past. When it was a small shack town there were bold spirits who prophesied that one day it would reach one hundred thousand inhabitants, but so were the eyes of most people blinded, not only to the great wealth of the country surrounding your city, but also by preconceived notions of how far it could grow, that they were scoffed at, and yet to-day we see that prophecy very nearly fulfilled and nobody doubts that in a few years its accomplishment will become a thing of the past.

It is necessary, therefore, that if we are to make a plan which shall be practical in the

* Autocrat of the Breakfast Table.

highest sense of the word, our first task is to consider very carefully what will be the future development of your city, and how far will this development proceed. As soon as we attempt to do this we are confronted with a great difficulty owing to a lack of any adequate precedent on which to base our calculations. If we go to the cities and towns of the Old World for information on the subject of the growth of cities we are confronted with an entirely different set of conditions to those prevailing in Canada at the present time. In the old days the town was but the nucleus for purposes of trade or defence for a large and scattered rural population spread thickly over the surrounding country for a very considerable area, but nowadays wholesale methods of manufacture and rapid means of transit are completely revolutionising this state of things so that, even in old countries, the population is in a state of flux, and conditions are so altering that the precedent available is of very little use. This means that we cannot judge from what has happened in the past what may happen to cities like Calgary in the future, but so far as these examples of days gone by and from older lands are of any use, they would point to the cities of the future becoming vaster and richer than anything which has been possible hitherto. Not only do the increased traffic facilities to which I have referred make it possible to cater for larger bodies of people congregated together within small areas, but the centripetal influences which are denuding the countryside in older lands will again tend towards increased size in the cities of the future.

It may seem a little absurd to those who have never been there, to talk of Calgary, which is a City of eighty thousand inhabitants, as "a city of the future," but you who know it well and who live in it, and have learned to love your wonderfully bright climate and clear atmosphere which cannot be obtained at lower altitudes, will agree with me that no one can live even for a short time among you without being impressed with the genuineness as well as the practicability of the spirit of optimism which pervades your lives and all you do, and which causes you to feel that the work you are doing to-day is but the laying of the foundation upon which a greater and nobler city is some day to be built, a conviction which colours all your actions and influences your lives at every turn.

It is this spirit which so wonderfully combines optimism with a sound business instinct which has given you such an enthusiasm for city planning, for you feel that now is your chance, while you are engaged upon the foundations of your city, to see that those foundations shall be rightly and strongly and well laid, and so planned that it shall be possible to build in the future a superstructure which shall give you a name among the great and beautiful cities of the world.

Seeing all this, and realising from personal experience, the high civic ideal which, in your leading citizens, as well as in the rank and file, has so rapidly taken the place of the rough and ready methods of the shack town of early days, I place before you my proposals for the future of your city knowing that I shall have not only a sympathetic but an intelligent appreciation of the fact that we are planning far ahead, and that far-seeing and painstaking enthusiasm will have to carry out step by step, day by day, and year by year, the settled policies which we are laying down, without fear, favour, or faltering.

It is not necessary, therefore, that I should preface my report on my city planning scheme with a long description of the benefits to be obtained by planning and ordering in advance, instead of leaving development to proceed anyhow just as it will ; and then spending enormous sums of money to right the wrong instead of doing the right thing at first. You



Fig. 3.—THE FIRST PHOTOGRAPH OF CALGARY EVER TAKEN. SHOWING IT IN 1883.



Fig. 4.—CALGARY IN 1891.

citizens of Calgary have been studying this question I know for years, and I know also that you are as convinced as I am of the great benefit which must accrue to your city if, before expensive buildings are erected, you decide the location which is best suited to them and arrange that nothing shall be done which shall mar their beauty or interfere with their usefulness. Not only this, but I was much struck when I was in Calgary with the intelligent manner in which your complicated traffic problems are being grasped, and the deep thought you have already given to their solution, especially in connection with the subways, and thus two of the most serious practical aspects of city planning are fireside subjects with you, and I lay my plans before you knowing that they will receive sympathetic handling and a fair and candid examination.

These introductory notes would not be complete without some reference to the scope of our scheme. It is strictly preliminary, and must therefore be regarded as a series of studies for the better ordering of your city, and not as presenting complete examination of our proposals to be adopted without further discussion or consideration. The main intention is to show the enormous importance of city planning from the financial, industrial, commercial and æsthetic standpoints, and in particular to draw attention to Calgary's unique opportunity for logical planning and for the creation of those amenities whether of park, boulevard, or recreation grounds which are essential to every city which is to compete for a place among the desirable residential or commercial centres of the Dominion.

As a preliminary scheme it is intended to direct into proper channels, and to present in their logical order, these questions of the future development of your city which are so rapidly becoming extremely urgent, so that reliable detailed plans may be made to enlarged scales which shall embody any amendments which a more extended study of your problems may suggest. It is not conceivable that the final planning could be satisfactorily accomplished until certain broad principles and the outlines of a definite course of action had been agreed upon. As we have said, the development of a city is too serious a subject to permit of anything short of the most exhaustive and minute consideration, and the impetuous haste of over-zealous enthusiasts can only do irreparable harm and finally damp the ardour of the sanest Civic reformer. This then is the time for the fullest consideration of the preliminary suggestions ; so that when the scheme is finally completed it may embody the best economic solution of which the opportunity permits.

Nevertheless, although I was instructed to prepare a preliminary report, I have, in my enthusiasm for my subject, ventured upon a more fully detailed treatment of the central portion of the city. My chief reason for doing so is because it is upon this area that most of the inevitable divergence of opinion as to ends to be aimed for and means to be used for their attainment will centre, and because I felt that this is the stage in the city's development when a full and candid discussion of the several co-relative questions should be encouraged so that the representatives of the various interests whose future may be vitally bound up with your decisions, may be given the opportunity of placing their views on record. Even in these enlarged details, however, there is no intention of finality as to detail, though I sincerely hope the broad principles which they suggest may meet with general approval.

In conclusion, I would point out that all my suggestions are based on surveys, contours and data supplied to me for the purpose, the accuracy of which I cannot vouch for. While I have found them sufficiently correct for the preliminary plans, fuller data will probably become necessary when the larger and more detailed scheme is undertaken.



Fig. 5.—CALGARY'S BLUFFS, WHICH SURROUND THE CITY ON ALL SIDES.
NOTE THE COUNTRY CLUB IN THE DISTANCE.



Fig. 6.—THE BLUFFS ARE BEAUTIFUL ALREADY, AND MAKE IDEAL PARK SITES.
THEY SHOULD ALL BE PRESERVED FOR THE PURPOSE.

PART II.

THE TASK BEFORE US.

THE first necessity in the preparation of a City Planning scheme is of course an examination of the site as it exists at the present time, and, still more important, the study of the history of the town or city to be planned, not only in order that we may learn by past failures, but because the history of the town must inevitably give us the key to the direction our proposals for its future development should take. If this is so in the case of most towns and cities, it is even more so in the Town Planning of a place like Calgary, where the evolution from a barren wilderness to one of the great cities of the world is taking place with almost startling rapidity, and where also it is proceeding along lines for which we have no precedent, or very little, in the cities of the Old World, so compelling us to re-cast many of our theories and preconceptions as to the right growth of cities and the direction in which it is possible and practicable to exercise control.

The history of your city, as illustrated in Figs. 3 and 4, is very illuminating from the town planning standpoint. One's first thought is regret for the "might have been," but of course one realises that idle dreaming of opportunities lost will not solve the problem as we have it before us to-day. We turn from this to make a careful study of all the evolutionary influences which have worked for the good or ill of Calgary in the past, so that we may use them and direct them in the future to the best advantage. Possibly the most striking thing about the growth of Calgary so far is the way in which the American "chess-board" system of planning has failed to meet your needs. To prove that this is so, one has only to point out that on those sub-divisions where the roads have been laid out with some regard to the contours, and the square plan has been departed from altogether, the very best class of development has taken place. This is notably so in Mount Royal, which has been called "the Hill of Millionaires." Another drawback of the grid-iron plan is the absence of those diagonal routes which are essential to a well-planned city and which, as I pointed out in more than one lecture I delivered at Calgary, are made everywhere by the people themselves diagonally across plots wherever development has not proceeded too far to allow of this.

A notable case occurs between Seventh Avenue near the Fairbanks Morse Co.'s premises, and Louise Bridge, where the way being open, a diagonal track has been formed for a considerable distance by the passing and repassing of many persons between the river and the heart of the city, which clearly indicates that, whatever may be our theory of town planning, in practice, people will have diagonal routes wherever it is possible, to save their going round two sides of a triangle instead of across the third, in this case, to save them the long walk all the way along Fourth Avenue until Centre Street is reached, and then along it to Seventh or Eighth Avenue, or the south side of the tracks.

Another mistake which we note in our preliminary survey of the city, and which Calgary has made in common with the towns of the Old World, is the adoption of a practically uniform width of road everywhere. This is almost inevitable if the grid-iron plan is adhered to, and is again a strong reason against its continuance. Instead, we ought to arrange our plan so that certain streets naturally become traffic routes and others remain mere means of access to the buildings which line them on either side, thus giving quiet and privacy to the residential

districts. We know then which roads will require expensive paving to take heavy traffic, and can concentrate on them leaving the others (called "non-traffic" roads) to be laid down partly in grass and trees, and partly in some simple and pretty or brightly coloured surfacing material which will suffice for the tradesmen's carts and occasional carriages which alone will use them, thus saving enormous expense. I shall have occasion to refer again to this point in dealing with traffic problems.

Another matter which cannot fail to impress the city planner as he walks about your city is the influence exerted by the railway tracks upon its plan and development. Immediately he crosses them at any point within the thickly populated area he discovers that development is proceeding on entirely different lines on each side, and this cannot be for the good of your city. Development is being influenced and warped by the presence of the tracks in a way it should not be, and it will be one of our tasks to suggest means for overcoming this, so that the most expensive property and the business centre of the city may extend naturally and inevitably without being warped by such factors and considerations.

The business centre itself has already attained to something of that individuality which marks the central portions of all settled cities, notwithstanding its rapid growth. There is of course a marked tendency to congestion and the creation of abnormally high buildings, which we are very pleased to find your Council are determined shall proceed no further, and that the height of buildings shall be limited to ten stories or thereabouts. This will be for the good of the city in every way, not only because it will prevent congestion, but because it will place a larger area of land on the market as a part of the great business centre, thus compelling it to spread outwards instead of growing upwards which is far better and more convenient, as it simplifies the traffic problems as well as of allowing free access for light and air.

The disposition of the industries at present housed in Calgary again formed another feature of great interest to us as city planners. These were put on a plan which formed the basis of Fig. 36 to this report, and it was immediately apparent that in their location they came under two headings. First, there were those which were scattered through the centre of the city and which received their location before it could possibly have been evident to what size Calgary would grow, and secondly, there were those others which arrange themselves naturally in groups in two or three places which were rapidly becoming manufacturing centres. With regard to the first of these, they were, from the point of view of their site planning, completely obsolete, and their removal has elsewhere been advocated, but with regard to the second class we have had very carefully to consider whether the evolutionary process which determines their position should not continue to do so on an enlarged scale.

On the artistic side our preliminary survey was most encouraging apart from the fact that Calgary's great advantages in this direction seemed to be so little realised. Its unique site in a valley surrounded by steep bluffs, beyond which the country is of a pleasantly rolling description, is a very pleasant change after the flat expanses of prairie through which one comes by train from the East. Along your two rivers also, the Bow and the Elbow, there are numberless beauty spots, and even where these do not exist, or have been somewhat destroyed by the type of development allowed along their banks, there is no doubt that they can be restored to a type of beauty more suited to their urban surroundings, and that at comparatively little expense. (Figs. 5 and 6).

Another advantage which seems never to have been realised by the people living in Calgary,

is the mass of material which exists for the formation of foliage effects. It is generally considered that very little can be done in this way, but any botanist or arboriculturist who will take the trouble to go about the environs of the City and collect specimens of all the different species he can find, will be amazed to discover what a number there are growing in hidden and forgotten corners. When we consider that for every species to be found there are probably a dozen more varieties having the same habits and suited to the same conditions which will thrive equally well, we see that there is no need why your parks and boulevards should be devoid of that beauty which only foliage can give. As an instance of this, we may point out that in the very early spring, while this survey was going on, in several of the gardens of Calgary, gooseberry bushes were putting forth their bright green leaves at a time when everything else was quite bare of foliage, and one therefore has immediate ground for assuming that experiments with the whole ribes family might lead to surprisingly successful results. In other parts of the Dominion this sort of experimenting is going on at the present time on a large scale. At Regina, large Government and City nurseries have been established, and there on the flat prairie, where there is no protection of any kind, numberless species and varieties of trees, shrubs, and hardy flowering plants have been proved to be capable of naturalization, and, unless Calgary does something of this sort in the future, it will be left behind in the race for that form of beauty which does more than anything else to create a residential centre and encourage a permanent resident population.

Turning now to the legal aspects of town planning, we were surprised as well as delighted to find how much had already been done in your City and in the Province of Alberta in the way of enactments of the Provincial Legislature as well as the Ordinances and Statutes of your City Charter and your Building Ordinances, which all tend to strengthen our hands in the task before us. One excellent provision which we have not seen adopted elsewhere compels owners of property abutting on sheets of water to allow public access to the foreshore, whether it is a river or a lake, and this is a perfectly splendid and extremely public spirited enactment. The provisions relating to the heights of buildings we have already referred to, and there are many others too numerous to mention here but which we may have occasion to refer to from time to time as we take up various portions of the plans for consideration.

The importance of town planning regulations, however, must always be greatest in a place like Calgary where you have a large number of absentee owners who being non-resident, have no local patriotism and no interest in the city beyond that which suggests the creation of enhanced value to the land they own. There are notable exceptions to every rule, but the fact remains that, the world over, the non-resident small owner can only be dealt with by legislative enactments. Other methods are usually too dilatory, clumsy, and expensive. Persons of British extraction will, however, never submit to the drastic measures which operate in Germany where the municipality has power to expropriate, and after the formation of new streets, to re-apportion the remaining land amongst the original owners. How this is done is very clearly shown in Figs. 7 and 8, reproduced from Mr. Councillor Nettlefold's excellent hand-book entitled, "Practical Housing." They both cover the same area which, in the illustrations referred to, is surrounded by a black line. The first of these shows the ground as it was divided up between the various owners previous to the reconstruction scheme undertaken by the municipal authorities, and the second, how the same area looked after the redistribution was completed. As a whole, the process works very well, for, as will

easily be seen on reference to the plan, the re-distribution scheme so increases the value of the land that, while it gives back to each of the original owners a smaller plot than it takes away, they are more than satisfied with the exchange. While we ourselves are not sanguine as to the possibility of adapting this method *en bloc*, it is only fair to state that the author of the book just referred to, who is a man of large experience in the solution of practical housing problems, expresses his opinion that there is no reason why the same thing should not be done in English-speaking countries under methods more compatible with English conditions.

Anyway, if such drastic measures are not possible in Canadian cities, it would seem only reasonable and fair in the public interest that property owners should not have the power to hold up the community and block improvements by demanding an unreasonable sum for

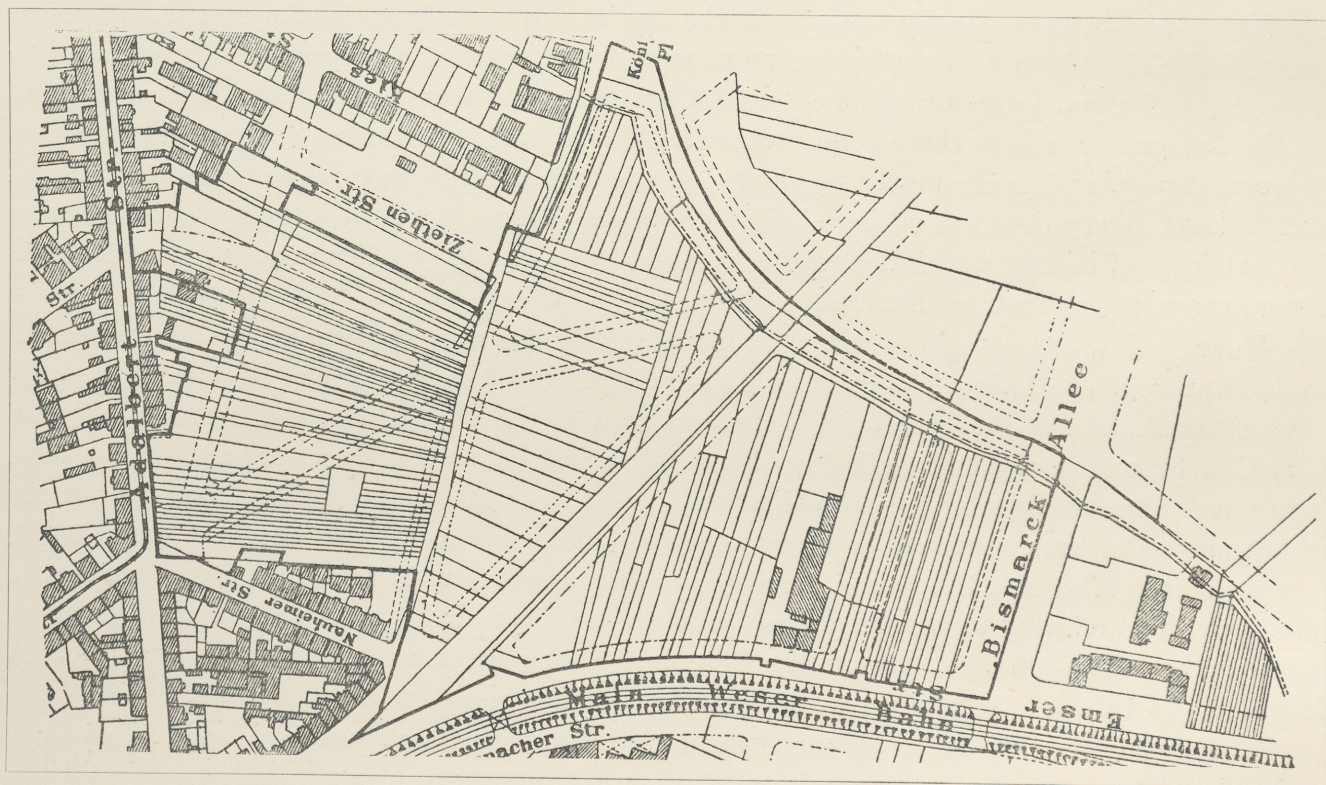


Fig. 7.—IN BERLIN THEY DO THEIR TOWN PLANNING MUCH MORE BOLDLY THAN WE ARE ASKING YOU TO DO IN CALGARY. (See Fig. 8).

their holdings, or to make the acquisition of their land almost impossible owing to the cost of the necessary legal proceedings to compel a sale. Until a civic conscience has been created in these matters, reasonable powers of expropriation by fair terms seem advisable.

Large powers of this description are of course now available under the splendid Town Planning Act recently passed by your Provincial Legislature.* We notice with particular pleasure the large powers which are given under this Act to your Minister of Municipal Affairs for the Province of Alberta, and also to the Lieutenant Governor in Council because, in a town planning scheme, there is always so much of peculiarly local importance which

* See Appendix C.

no general act could allow for, and which must receive special consideration as it develops. Such local conditions would deal with the heights of buildings to be allowed in various parts of the city, and the alignment of their frontages, also powers to allocate to different portions of the area covered differing functions and uses, and again powers regulating the gradients of your roads. In another way useful powers could be obtained scheduling all land too low for proper drainage, or too high for water supply by gravitation, and determining that these shall be kept as open spaces, placing in the same category all steep bluffs which cannot reasonably be sub-divided into building plots.

As regards the value of this Town Planning Act to Calgary, we need only say that while it appears very wisely to have been modelled on similar acts passed in Great Britain, Germany,

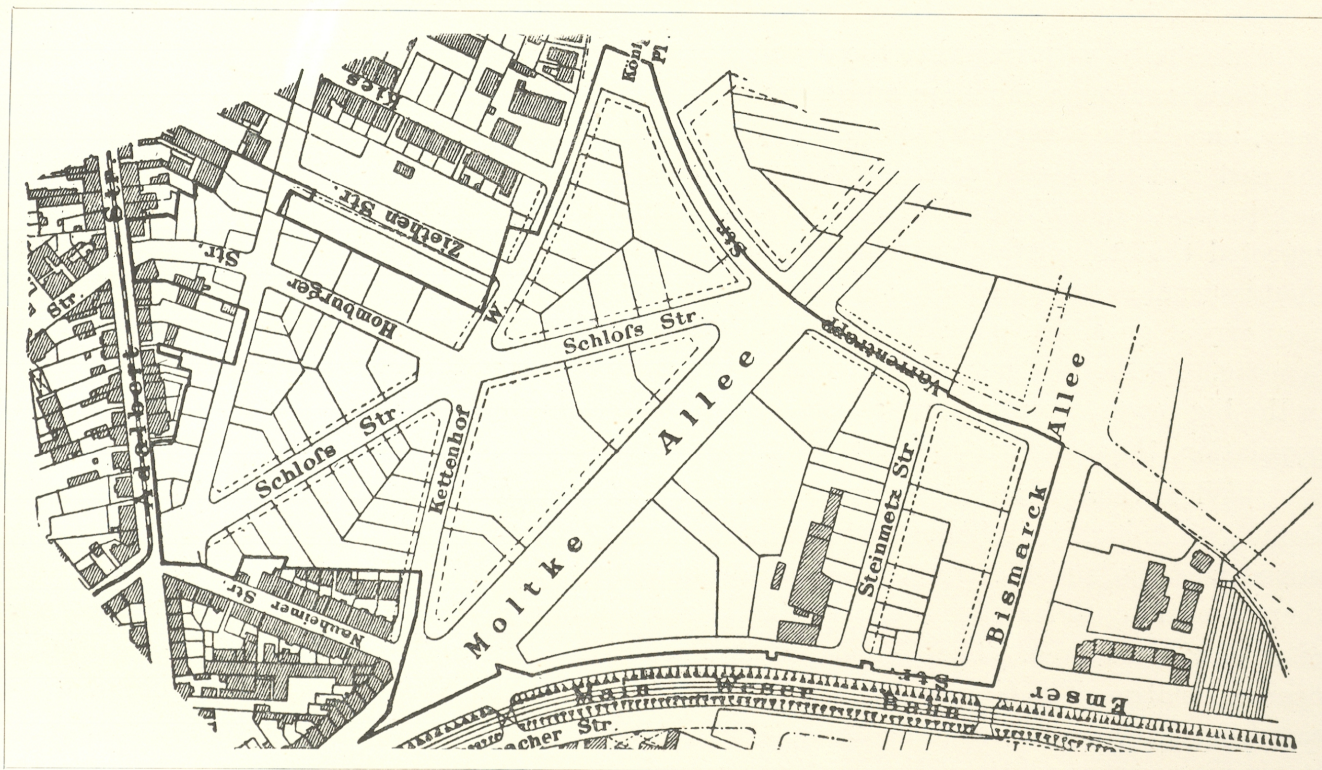


Fig. 8.—THE SAME AREA AS SHOWN IN FIG. 7 AFTER HAVING BEEN RE-PLANNED.

and elsewhere, care has evidently been taken to make it adaptable to local conditions in every way, and there need be no fear that it will result in the dragooning of Calgary on lines unsuited to a young and virile community in a great and progressive country.

One of the most important questions which comes up for examination immediately we undertake our preliminary survey, is that of ultimate population. Our task in this direction was made extremely difficult, not only, as we have already explained, by the lack of precedent on which to build any theory on the subject, but also from the great divergence of opinion which exists among those who have lived in Calgary for many years and watched its growth almost from the beginning. I think we cannot do better in dealing with this matter than by placing before you the digests of several conversations we had with your leading citizens on this subject when taking it up for serious examination.

We would first of all take the point of view of one of your leading real estate men, which we think may be considered as expressing the solid opinion of the more conservative and reliable of the gentlemen engaged on the real estate business in Calgary. He said :—

“The two factors making for an increase in the population of Calgary are, first, the development of the city as a railway centre, and, secondly, the gradual process of peopling the surrounding districts. [This involves and includes the establishment of factories at Calgary].

“As to the first of these factors, railway facilities are being developed very rapidly [as will be explained later in dealing with traffic facilities]. The construction of a new trans-continental line through Edmonton which will not touch Calgary, hardly affects the case, as, while Edmonton will undoubtedly benefit by the construction of the new line, it will be because new resources are being opened up to which Calgary in the past has owed nothing, and not because Calgary would give anything up to Edmonton.

“Secondly, with regard to the development of surrounding districts the irrigation scheme at present nearing completion and being constructed by the Canadian Pacific Railway Company, must have a very large influence, its operations extend over a large area of country to the east and north-east of Calgary, approximately a hundred and thirty miles across from east to west, and will cost when completed, from fifteen to twenty million dollars. It is expected that this irrigation scheme will lead to farming of a far more intensive character than is usual or possible on the unirrigated prairie, so that, assuming that it is successful, we may expect an added population close to Calgary of, say, three million persons engaged on farming. As the tendency in this country is for every interest, except farming, to congregate in the big towns, even making allowance for the rise and growth of the subsidiary centres of population, the benefit to Calgary must be enormous.

“While there is an impression afoot that this irrigated area will be taken up for wheat farming, it is highly probable that it will, as already stated, be far more useful for dairy and mixed farming, and therefore, the question of railway facilities is important. On this score there is nothing to fear, for the Canadian Pacific Railway comes across the south-west corner of the irrigated area. The Grand Trunk Pacific Railway to Winnipeg goes right across it near the centre. The Grand Trunk Pacific and the Canadian Northern Railways going north-east from Calgary will cross the area diagonally entering it near the south-east corner and leaving it near the centre of the Northern boundary. Numerous other railway lines across it are projected, and will doubtless be constructed as soon as there is sufficient settled population to justify the undertaking.”

The second of our informants was selected from a large number of others for his representative position. He had been connected with the Police Administration for many years, and, therefore, his views should carry weight. He said :—

“The development of Calgary as a Railway Centre can do nothing but good for the city. It will encourage the dairy and produce farmer by enabling him to market his produce, and universal experience shows, both in the States and here, that the suburban stations which this development will provide, and which will be a necessity to him, do not tend to the formation of a large number of subsidiary trading centres, and consequently they are for the good of the city itself. The grain traffic is growing so fast that the Canadian Pacific Railways are already becoming quite unable to cope with it, and there is, therefore, no fear that their trade in grain, or this town as a grain collecting centre, will suffer if other railways take all the

trade they can get. The inevitable multiplication of suburban stations will also prevent the farmer having to cart his grain, say, thirty miles, with probably days to wait before he can get the cars into which to load it.

"On the other hand, the Canadian Pacific Railway Company's irrigation scheme will not influence the situation as rapidly as we might expect, for it is pretty certain to be tried for wheat growing before it is turned over to the small-holder with his intensive cultivation to which it is best adapted. Irrigation has been tried in this district for wheat many times, and has proved to be only moderately successful as compared with mixed farming.

"I should say," continued this gentleman, "if you plan for a city of 250,000 inhabitants you will not be far wrong. There is enough land sub-divided now to house a population of at least five hundred thousand, or double the amount I state, so very little more genuine sub-division is likely to be done. The tendency will be not for the city to expand, it is too much expanded as it is, but for the intervening spaces to be filled up. You may, therefore, plan for a city to occupy the site of the present one with, of course, a much more thickly distributed population."

It will be seen that the authority just quoted agrees with our first informant on most points, and that the only divergence of opinion which really matters is that he contemplates a little delay in the effect which the irrigation scheme must have on the population. This is, of course, not a very serious matter, as we are planning not for immediate needs, but for Calgary's future through several generations.

The two opinions just given were ably backed up by a gentleman interested in Provincial Government with large business interests in Calgary. He said :—

"Some years ago I was quite convinced that we should never have more than fifty thousand people here, and already we have over-stepped that limit. The fact is, that we have completely outpaced all precedent, and that we have nothing whatever to guide us. Personally, although it may seem a very strong assertion, I should not be surprised to see a population of one million inhabitants.

"Of course, there is no doubt that much must be done in the way of tree planting and the laying-out of parks and open spaces, and the consideration of traffic facilities to make Calgary attractive as a place of permanent residence, and that great results in this direction are easily possible, is evident if they are taken in hand now before further building is done. We will, therefore, look to Calgary to house a resident population, independent of trade interests, as well as that which now resides here for business and commercial purposes."

The remaining interest which we think should be represented on this question is that of a gentleman intimately connected with the Government of the City itself. He said :—

"You will be quite safe in working on the assumption that the population in our time will rise to half a million. The standard set by old cities has been entirely swept away, and we have completely out-distanced them." He seemed to find the same difficulty to which we have already referred more than once, of finding precedent on which to base his calculations. He said, however, "We have the case of Toronto, which, though it is an old city of four hundred thousand inhabitants, is to-day growing faster than ever it did. The coming of a new Trunk Railway through Edmonton will draw a large population to that city, but we can spare them without in any way lowering the above estimate at the rate at which they are at present coming to the West from the old countries. The population may quite conceivably rise some

day to one million people, but this will not be in our time. The irrigation scheme will have its influence, bringing a large number of small-holders into the neighbourhood of Calgary."

We have here four gentlemen, all entitled to speak with authority on the subject, agreeing approximately in their verdicts, and making it clear that the sanest and best informed opinion among local men of repute is that our plan should be so framed as to accommodate half a million inhabitants. We have, however, the curious proviso attached to this statement, viz., that the area covered by the city of half a million inhabitants will not be greater appreciably than that of the city of to-day with rather less than one-fifth of that population. It is confidently expected, however, that all the surrounding districts will be taken up by dairy farmers, and those who will produce the market garden and nursery produce required by so large a city, and that thus, while we are called upon to plan only for a city of half a million inhabitants, we have to reckon with a surrounding population which will greatly augment that number.

The scattered nature of the population of Calgary, as compared with fully grown cities in the old country, will be apparent immediately on reference to the table given below *, which compares the population and area of your city with some of those in Great Britain. Of course, the latter cities are congested to an extent we hope Calgary never will be, even with the help of the higher buildings usual of the American Continent which makes congestion less objectionable, perhaps, than in the old country; but, nevertheless, the difference in the figures is so great as to show at once that, while a process of expansion may be urgently called for in the former case, in the latter the other extreme prevails. This has evidently been felt by more than one of the gentlemen whose opinions are quoted here, and we may say, that we entirely agree with this view. In fact, it must be obvious to everyone that, until your city is more closely populated, the problems of sewerage, road making, lighting, and the provision of other public services for its whole area is a financial impossibility, and this alone, apart from all other considerations, is sufficient reason why a great effort should be made to create a public sentiment in favour of limiting the area over which development as house property should proceed.

After very carefully considering the matter we have come to the conclusion that, even were it possible, we would not recommend either the extension or the contraction of the city limits. Having consideration to the extent and location of the development at present proceeding, we are led to the conclusion that the city limits as they stand at present will suffice very well for the future need of Calgary, and will allow both of the filling up or intensive process we have described and advocated, and also for the creation of those outlying suburbs and hamlets which are sure to spring up on the confines of the city for the sake, for instance, of special industries which will be located there and which are of such a nature that they cannot be very well housed nearer the centre of the populated districts.

Other points in our preliminary survey of the site, such as the relation of existing streets to the volume of traffic which passes along them, and the amount and allocation of the existing parks and recreation grounds, will come up for consideration when we take up these various points for examination and elaboration in other parts of the report.

*			Year of Census or Estimate.		Area in Acres.
	Calgary	80,000	1913	25,920
	Glasgow (Municipal and Suburban)	1,015,165	1913	19,183
	Liverpool (County Borough)	758,031	1913	24,102
	Birmingham (County Borough)	840,202	1911	43,537
	Manchester (County Borough)	730,976	1913	21,688
	Sheffield	476,971	1913	24,347
	Leeds	457,295	1913	26,242



Fig. 9.

PART III.

TRAFFIC DISPOSAL, POLICING, AND FIRE CONTROL.

A CITY'S traffic is its life blood. Just as in the human economy, it is no good providing food and fresh air and the other necessities of life unless their active principles can be conveyed to every part of the body by means of the circulation of the vital fluid, so in exactly the same way it is no good erecting large and beautiful buildings and storing them with the riches of modern civilization unless we also provide the means of collection and distribution which are essential to their effective use and application to our needs.

It is for this reason, that immediately we leave our examination of the site, and set to work to plan Calgary as we hope it will be in the future, the first thing we take up for consideration is the question of traffic disposal, and those two other questions which are intimately associated with it, effective policing, and up-to-date fire control.

The general question of traffic control crystallises round three prominent factors, two of which we have already referred to. These are the widths of the streets and their direction, the subways or other means to be used for connection between the north and south side of the tracks, and the bridges over the rivers.

With regard to the widths and directions of the streets we have already said something, and reference to Figs. 1 and 12 will show more clearly than anything we can say on the subject what we propose to do to remedy the existing state of things. While the former illustrates better than the other our suggestions in relation to other factors in Town Planning, the latter, being specially drawn to illustrate this point, indicates more clearly the reasons for our proposals. From this it will be seen that we have reluctantly come to the conclusion that very little can be done beyond occasional street widenings to improve the centre of Calgary as at present permanently built up with business and wholesale premises, and nearly all our recommendations under this head have had to be confined to the area which is at the present time either more or less open, or contains only buildings of a somewhat temporary character. In order that you may see clearly the root principles which have actuated us under these circumstances I have given in Figs. 10 and 11 two diagrams, the first of which shows what we would have done had we been planning an entirely new city, and second, all that has been possible in Calgary. Of course these are not *plans* but *diagrams* reduced to their very simplest elements, and must be considered as such. In the first you will see that the traffic is dealt with in a very thorough-going manner, so that any one part of the city can be reached from any other with the greatest possible ease, and that special care has been taken to make sure that a very large proportion of the traffic shall be diverted from the public square in the centre of the town where congestion otherwise would inevitably occur. This has been done by providing what we call a "gyratory" system of interlacing roads which will form short cuts for the traffic approaching or leaving the centre of the city and, to prevent blind corners, the land at this point has been treated as park lands. On the second diagram, representing the arrangement proposed for Calgary, no such system of extensive park land has, however, been possible. As will be seen by comparing it with Fig. 12, we have provided two gyratory routes round the centre of the city, and from these at various points in their courses small radial systems, like small pieces of the first diagram, branch out in all

directions, and are again sub-divided as they proceed towards the open country. This arrangement, we think, will be found to work well in actual practice, so far as the area covered by them is concerned, while inside the inner of these two circles, it is feared that if you do all that is possible in the way of street widenings from time to time as opportunity offers, and even if

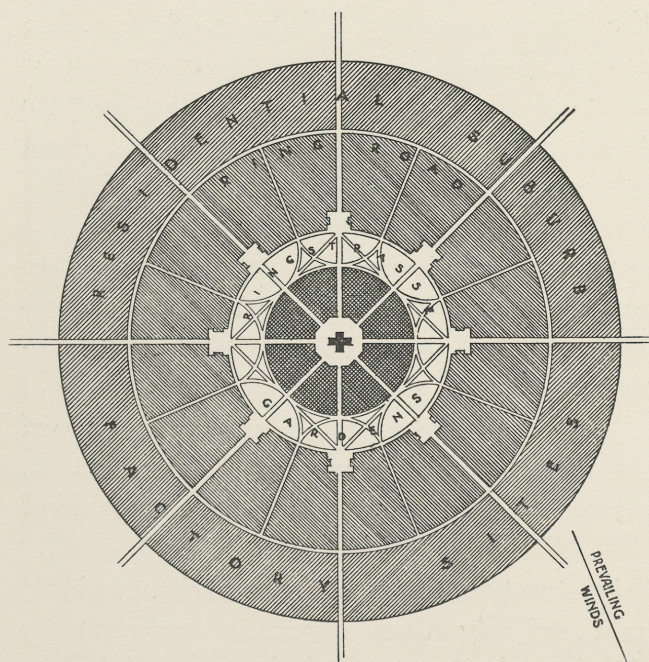


Fig. 10.—THE IDEAL TRAFFIC DIAGRAM.

drawback to this arrangement such as there was in the case of the Regent Street Quadrant, owing to lack of light in the rooms behind the Arcade. How this same arrangement works in a sunnier clime is shown in Fig. 29, which gives exactly the same thing done solely for shade and protection from sun and rain in the Rue de Rivoli, Paris. From this you will see that a very fine effect from the artistic point of view as well as many practical advantages can be gained by adopting our proposals. Not only will you obtain shelter from the cold of winter and the heat of summer both for your side walks and the rooms beyond them, and not only will the display boards of your shops attract much more notice when they can be viewed in comfort in all weathers, but you will also provide your city with a new feature not to be found in other places in the Dominion, and which will give it an added attraction, and so, out of what was a defect in your city planning will grow one of its most distinctive characteristics.

Of course, even within the central area which as we have said is, generally speaking,

you make those few diagonal routes which we have shown, congestion in your main streets will become so very great that you will have no alternative to the adoption of the proposal which I made in several of my speeches at Calgary, which is, to set back the front line of your shops and business premises ten or twelve feet as the construction of the buildings makes possible, and carry your side walks in the arcade under the upper stories of the buildings so formed, throwing the area covered by the present side walk into the roadway, as indicated in Fig. 13. In doing this you will be merely following the precedent set by the great architect, Nash, one hundred years ago, in the Regent Street Quadrant, in London, and more recently by the designers of the Ritz Hotel, Piccadilly, and your wonderfully strong sunlight and clear air will prevent there being any

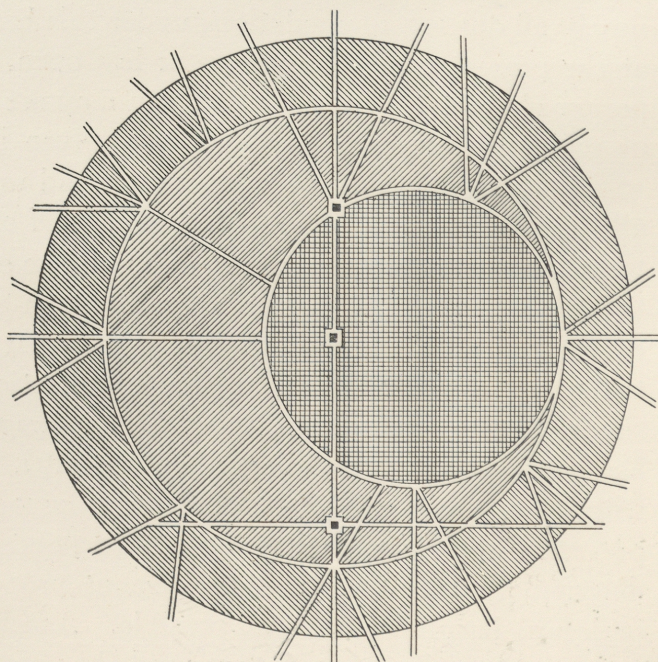
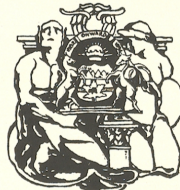


Fig. 11.—ALL THAT IS POSSIBLE IN A BUILT-UP AREA LIKE THE CENTRE OF CALGARY.

CITY OF CALGARY

PRELIMINARY TOWN PLANNING SCHEME

PLAN SHEWING MAIN
TRAFFIC ROUTES



THOMAS H. MAWSON & SONS
LONDON LANCASTER VANCOUVER
& NEW YORK

GYRATORY ROUTES

RADIAL FEEDERS

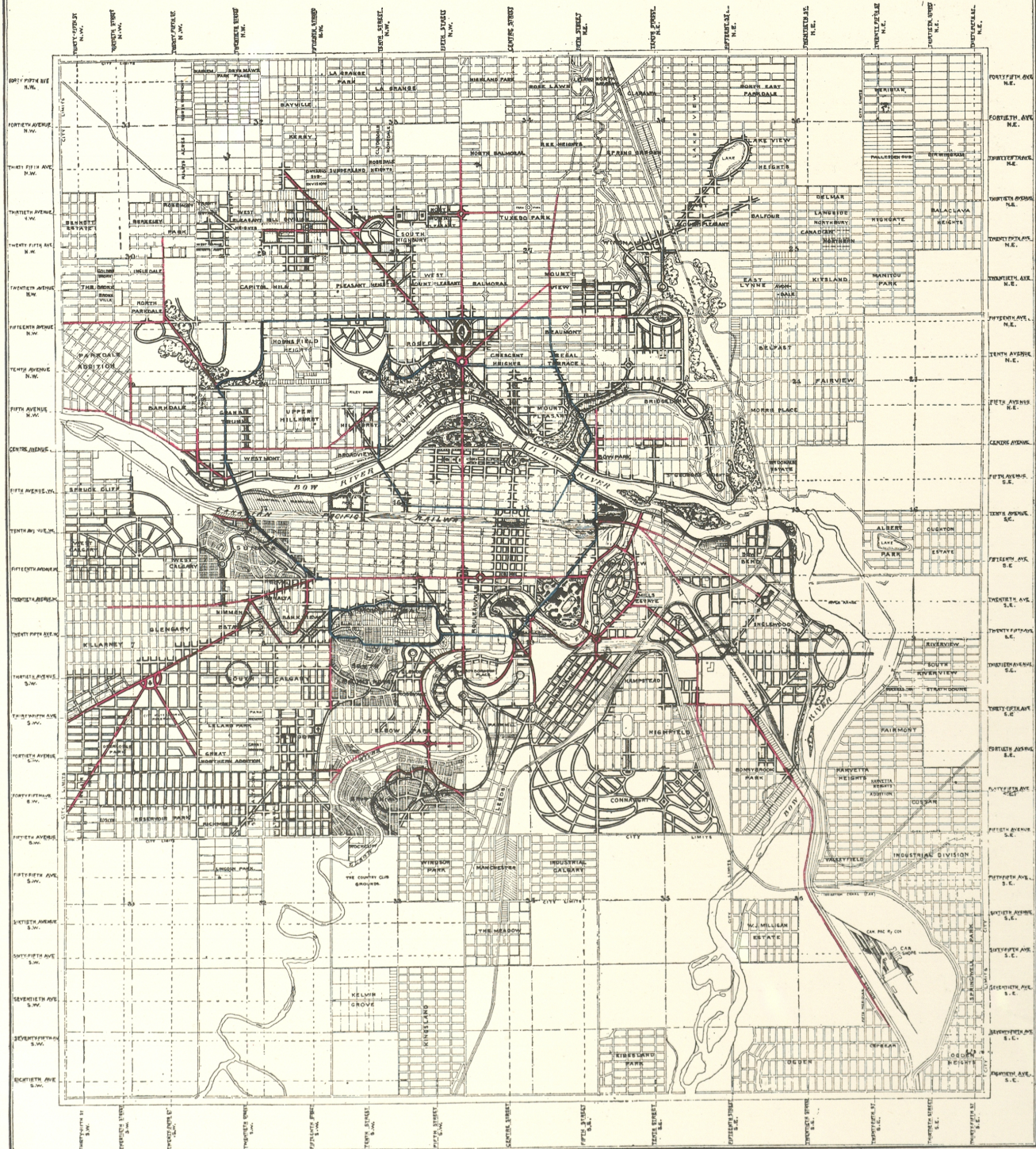


Fig. 12.—COMPARE WITH THE DIAGRAM FIG. 11.

too far built-up to allow of drastic treatment, there are very many roads where it will be possible to arrange for an alteration in width, and this alteration may proceed in two ways. You may add to the main traffic routes and, to make up, you can take from the other roads which at present are planned on such a very wasteful basis. You may of course need legislative sanction to this proposal, but even so, the advantages to be gained are great enough to warrant your obtaining this and to make it evident that you ought to have it. As I pointed out in one of my lectures in Calgary, you have already provided within your city area of forty and a half square miles for nine hundred and fifty linear miles of streets, of which only forty-five miles are at present completed, and these have cost you \$4,879,114. There are, therefore, nine hundred and five miles yet to complete, which, without allowing anything for increase in the cost of labour and so on would, if made on the same principle as those you have already done, cost you the enormous sum of \$103,003,526, and this sum takes no account whatever of the cost of upkeep, which would be enough to swamp any city, or at any rate cripple its resources permanently. You have an example of the kind of thing this can lead to in the city of Omaha in the States where, had the original lay-out been adhered to, fifty-one per cent. of the total area of the town would have been streets and lanes, leaving only forty-nine per cent. for building upon. Of course, this sort of thing for Calgary is unthinkable. We cannot cripple your city's resources in the future by going on as you have been doing in the past, and the only way is to decide which of your roads will make traffic routes and provide amply for the traffic on those roads and reduce the others to a width sufficient for the small number of vehicles using them. In advocating the reduction of the width of your streets, however, I want to be particularly careful to make it plain that I do not intend that your city should have in its residential quarters roads, or we might almost call them lanes, of a mean and poverty-stricken description because they are so restricted in width. I would have the houses set back from the centre line of the street as far, or in some cases, further than they are at present, and while I would only provide sufficient road surface in the centre to allow two tradesmen's carts or two private automobiles to pass one another, the rest of the area would be laid down in turf and planted with trees so as to be an ornament and not an expense. I must leave it to my legal friends in the city to say whether it will be possible to impose the duty of keeping this



Fig. 13.—THE ARCADED SIDE WALKS AND TOWER OVER THE DEPÔT IN CENTRE STREET (See Fig. 29).

turf in order upon the owner of the land facing the street. From the fact that a large number of them already do this, I should think it would be a very easy matter, and, if so, many hands should make light work, and what might become a burden to the ratepayers if it were laid down in useless paving or macadam may become a source of great beauty to your city and give the same pleasure to those who look after it that they obtain from the care of the turf in their gardens adjoining it. In the garden cities of England adjoining owners have been allowed to enclose and use as garden space a portion of the roadway facing on their property on undertaking to keep it in order, to give up possession at any time when called upon to do so, and to refrain from building anything on it. This has worked very well indeed for, not only has it prevented waste of public money on broad roads where they are not needed, but it gives the assurance that, should the traffic increase along a given road, the owners on either side can be dispossessed of as much land as may be necessary to broaden it without the cost of a single cent to the municipality, and without taxing the community the fraction of a mill.

The question then arises, Which roads are we to treat as traffic routes, and which are we to deal with as suggested above? In its finer details this question can only be answered when a fully developed scheme for the whole of the city is prepared. It will be sufficient for the present preliminary examination of the subject if we say that all the roads specially indicated on Figs. 12, 14 and 21 (especially those shown on Fig. 12), will be more or less traffic routes, which could hardly be made too wide. One of the great traffic routes of England, the great North Road between London and Edinburgh (Fig. 16), where it passes through quite small villages, is made from 100 to 150 feet broad, so that in Calgary, where, as we have so often said, no one can tell what will happen in the future, a very ample allowance should be made wherever it is in any way possible. The plans referred to may be described as containing the "bones" of a thorough-going traffic scheme, and details will have to be worked out in the future taking the lines shown on these plans for a groundwork on which to base the final arrangement.

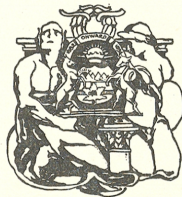
There is one other matter in relation to traffic problems in the centre of the city which requires mention, because not only will it help to solve quite a number of your difficulties on the very area where they are most pronounced, but also it will lead to greatly increased land values, and consequently better buildings and a finer city where your roads intersect. This is the rounding off, or cutting off, of the corners at the principal intersections of the streets. I have already pointed out in several of my public utterances in Calgary that your grid-iron system of planning leads to a great loss of momentum owing to all fast-wheeled traffic having to pull up every time it approaches the end of a block, for fear something coming down in the other direction should run into it.* Now if you would treat every corner as you have treated the corner block containing Fire Hall, No. 1, not only would this difficulty disappear owing to the way drivers could see what was coming towards them round the corner, but you would get, at every intersection in the heart of the City, a kind of open space suitable for the very best class of property, and particularly shops and stores, and you would find that invariably the best class of purchasers of sites for this purpose would fasten on to them immediately. The arrangement would also add to the beauty of your city by breaking up the monotonous regularity of your streets, which, as we have said before, being all one breadth, need something of this sort to give individuality and freedom from sameness.

* The Traffic and Transportation Committee suggested a regulation limiting the speed of all vehicles at the intersections of streets. ("News-Telegram," 28-4-13).

CITY OF CALGARY

PRELIMINARY TOWN PLANNING SCHEME

PLAN SHEWING EXISTING AND NEW
PARK AREAS WITH CONNECTING
BOULEVARDS ALSO RAILWAY
AND GOVERNMENT PROPERTIES



THOMAS H. MASON & SONS
INCORPORATED
100 REX STREET
CALGARY, ALBERTA

Key to Diagram Colour

EXISTING PARK AREAS—
NEW PARK AREAS—
CONNECTING BOULEVARDS—
RAILWAY PROPERTY—
GOVERNMENT PROPERTY—

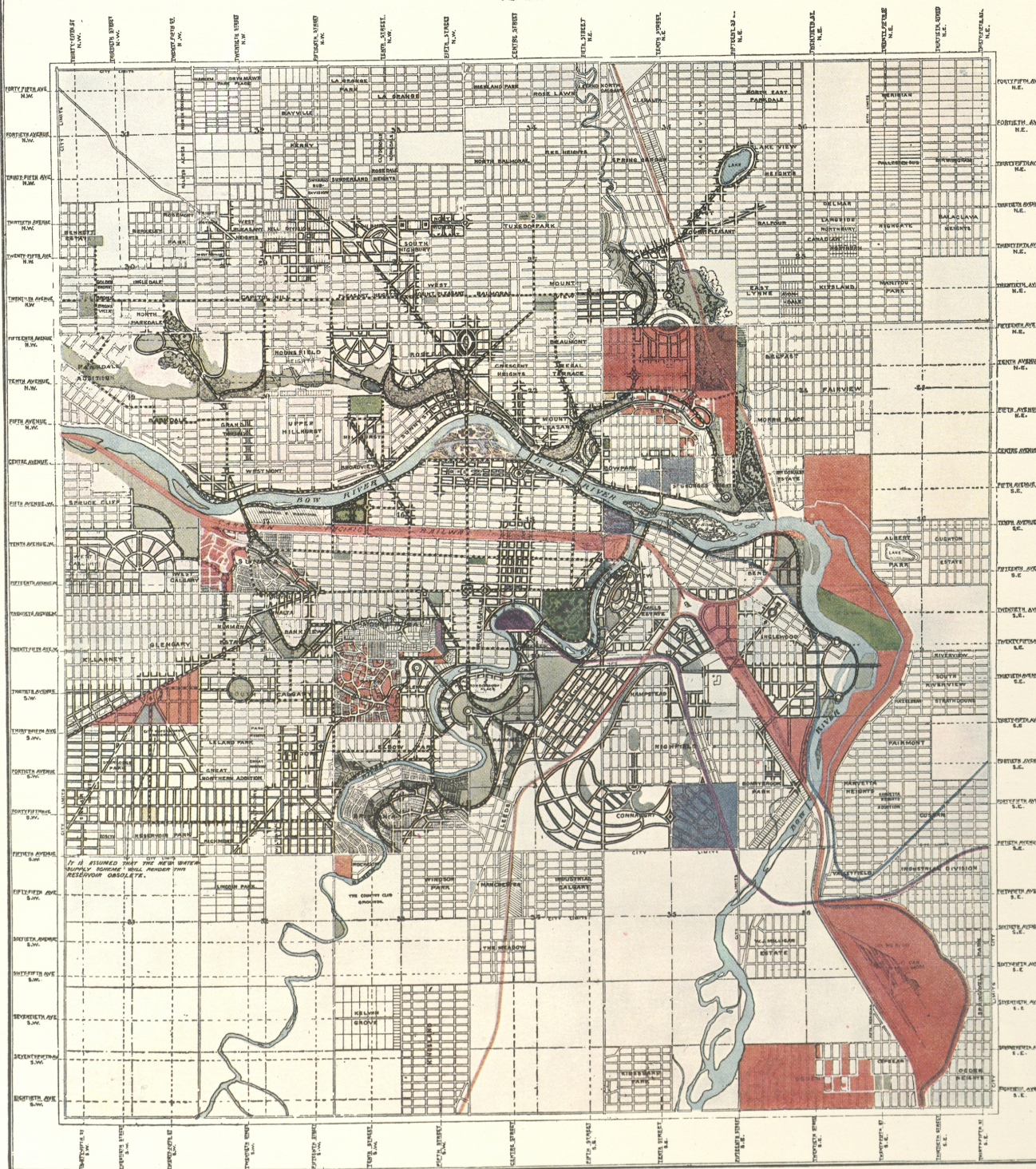
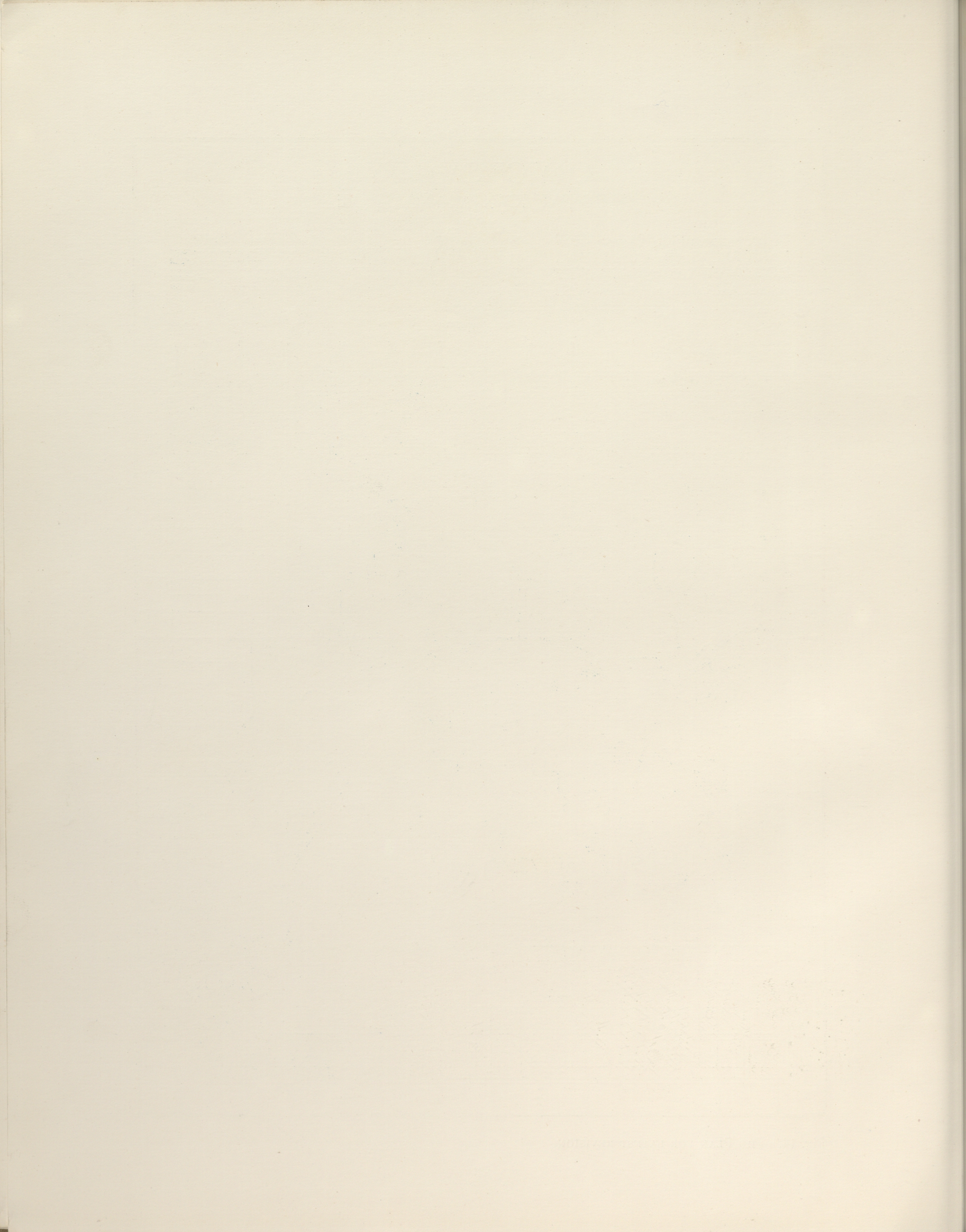


Fig. 14.—SEE PLAN FOR LATEST REVISION.



This question of the width and arrangement of your streets in relation to traffic is one with which we could fill considerably more space than we have at our disposal in this report, and we must now pass on to consider the other two subjects we mentioned—subways and the bridges over the rivers. With regard to the former of these, when the country round Calgary becomes more densely populated, and the number of trains passing through approximates more nearly to the state of things we find in the Old Country, it will, of course, be necessary to contrive so that the tracks are not trespassed upon anywhere in reaching one side from the other, especially for wheeled traffic. This state of things is bound to come sooner or later, and, in our proposals for the future planning of Calgary, we have to take it into account, for, in its way, it is one of the most serious problems we have had to tackle. The obvious methods of overcoming the difficulty naturally group themselves into two divisions :—Either we must go over the track or under it, and the one you have so far chosen is the latter by the provisions of the subways to be found at various points, and which we understand you are to construct immediately at others, notably on Fourth Street West. The great difficulty is of course that in order to join up to Ninth and Eleventh Avenues, and yet get sufficient

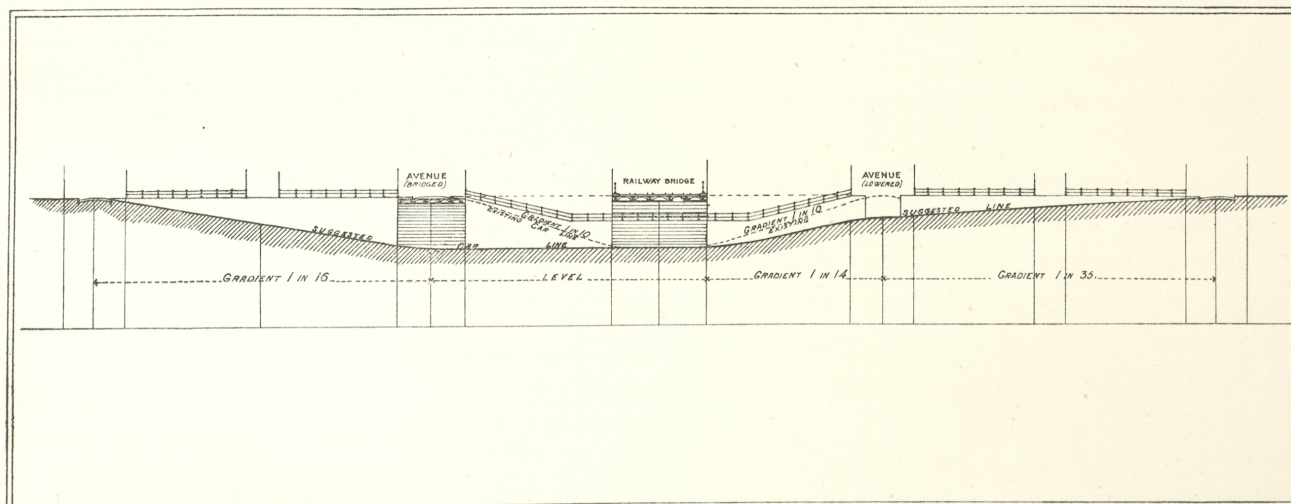


Fig. 15.—SUGGESTION FOR A NEW SUBWAY TO TAKE HEAVY LOADS.

head room under the railways you are compelled to adopt a fairly steep gradient, one which, in fact, is very difficult for horses and even for automobiles in slippery weather, as, for instance, whenever there happens to be a slight surface thaw in the winter. This difficulty leads to vehicles, and particularly automobiles, rushing the incline down into the subway so as to be able to overcome the slippery ascent on the other side of the track, with the result that fatal and other serious accidents at Ninth and Eleventh Avenues are far more frequent than they should be. The only suggestion so far put forward for dealing with this difficulty is that the tracks should be elevated, and this has no doubt arisen from a careful comparison of the subways to the east and the west of the Dépôt. On the east side the tracks are already somewhat elevated, and consequently the depression of the subways below the surrounding streets is not so great; but even here the gradient is steeper than is desirable. When Calgary has solved a large number of its more pressing problems it may be possible to do something in the way of elevating the tracks, for, costly as this will be, it will not be nearly so much so as, say, the

depression of the railways approaching Birmingham in England, or that wonderful series of arches stretching right across South London, and which carries the railway up to London Bridge Station. Meanwhile, however, as we have said, the immediate difficulty of getting heavy loads from one side of the track to the other is rapidly increasing, and some form of subway must be devised which will obviate this to some extent at least. We have therefore shown in Fig. 15 a method by which this could be done, but which is probably only applicable to a district made up more or less of wholesale premises in which access to the buildings between Eighth and Ninth and also Eleventh and Twelfth Avenues could be obtained from the rear by means of the lane. As will be seen, means are shown on one side of the section whereby Ninth and Eleventh avenues are carried on bridges across the street which runs level from under the railway tracks to this point while on the other side a suggestion is made for lowering the two avenues at the intersection, the distance between the two avenues in both cases allowing of a line of a much easier gradient than at present possible. If this is done at only one point not too far from the centre of the city, exceptionally heavy loads could be taken that way, and the existing subways serve for all ordinary purposes as they do at present.

It will be noticed that on Fig. 9 we have suggested bridges over the line to connect the Canadian Pacific Railway Hotel and offices with the south side of the track, but of course they do not present much advantage in the matter of gradient over the subways at present in use.

It has been suggested that the railway across the roadway should be depressed and the latter carried over it. This has the practical and very obvious advantage of preventing the one side of the track from being cut off from the other so as to cause that sudden change in its character to which we have already drawn attention, but unfortunately the position of the bridge over the Elbow River makes this quite impracticable. It is not possible to lower this bridge, and therefore it is not possible to depress the tracks on either side of it to any appreciable extent. On the contrary, the fact that they are at the present time slightly elevated above the surrounding ground for a considerable distance to the west of this bridge would favour the opposite treatment, that is, the elevation of the tracks which we have already discussed. Level crossings are, of course, quite a common arrangement in the Old Country, even in thickly populated districts, but they are a relic of a state of things which has become obsolete and are being gradually cleared away as opportunity offers, and no one who understood the matter would for a moment suggest their formation in Calgary, at least within two miles of the centre of the city.

We now turn to consider the most important question of all, the building of bridges across your two rivers. As you will see from Fig. 1 we have proposed three entirely new bridges across the Bow River* as well as the re-building in slightly altered positions of two others, while for the Elbow River we have arranged six other new ones, leaving those at present existing to be enlarged from time to time as may be necessary, in addition to a further bridge which will carry the riverside promenade along the Bow River across the mouth of the Elbow. A glance at the plans will show at once the inevitable nature of all our proposals, and with regard to the location of most of the bridges, it is not necessary to say anything further. In connection with two of them, however, that is, the bridges across the Bow River on Centre Street and

* Bridges at the East ends of St. Patrick's Island and St. George's Island are, we understand, already provided for.



Fig. 16.—STEVENAGE, HERTS. ENGLISH VILLAGES OF LESS THAN 1,000 INHABITANTS OFTEN HAVE A MAIN STREET MORE THAN 100 FEET WIDE. WHY SHOULD CANADIAN TOWNS BE SO CRAMPED?



Fig. 17.—HITCHIN. WHAT PRIVATE OWNERS CAN DO TO HELP THEIR CITY. THIS STREET OWES ALL ITS BEAUTY TO THE TREES PLANTED IN THE GARDENS. (Compare with Fig. 2.)

Fourth Street West, we have the further question of levels to consider owing to the proximity of the bluffs to the north side of the river. There have been considerable discussions as to whether the present Centre Street bridge should be re-built or a new one placed on Fourth Street West ; but this question hardly comes within our province, for ultimately there will have to be a bridge undoubtedly at both places sufficiently broad and well equipped to deal with a large volume of traffic, and it only remains for us to consider that other question which has caused such a very large amount of discussion in the local press, that is the levels and design of the erections themselves. Most of the discussion has revolved round Centre Street bridge, partly, no doubt because, as there is a bridge there already, an improved means of access is easier to imagine than at a point where no bridge whatever exists. Those interested in the subject

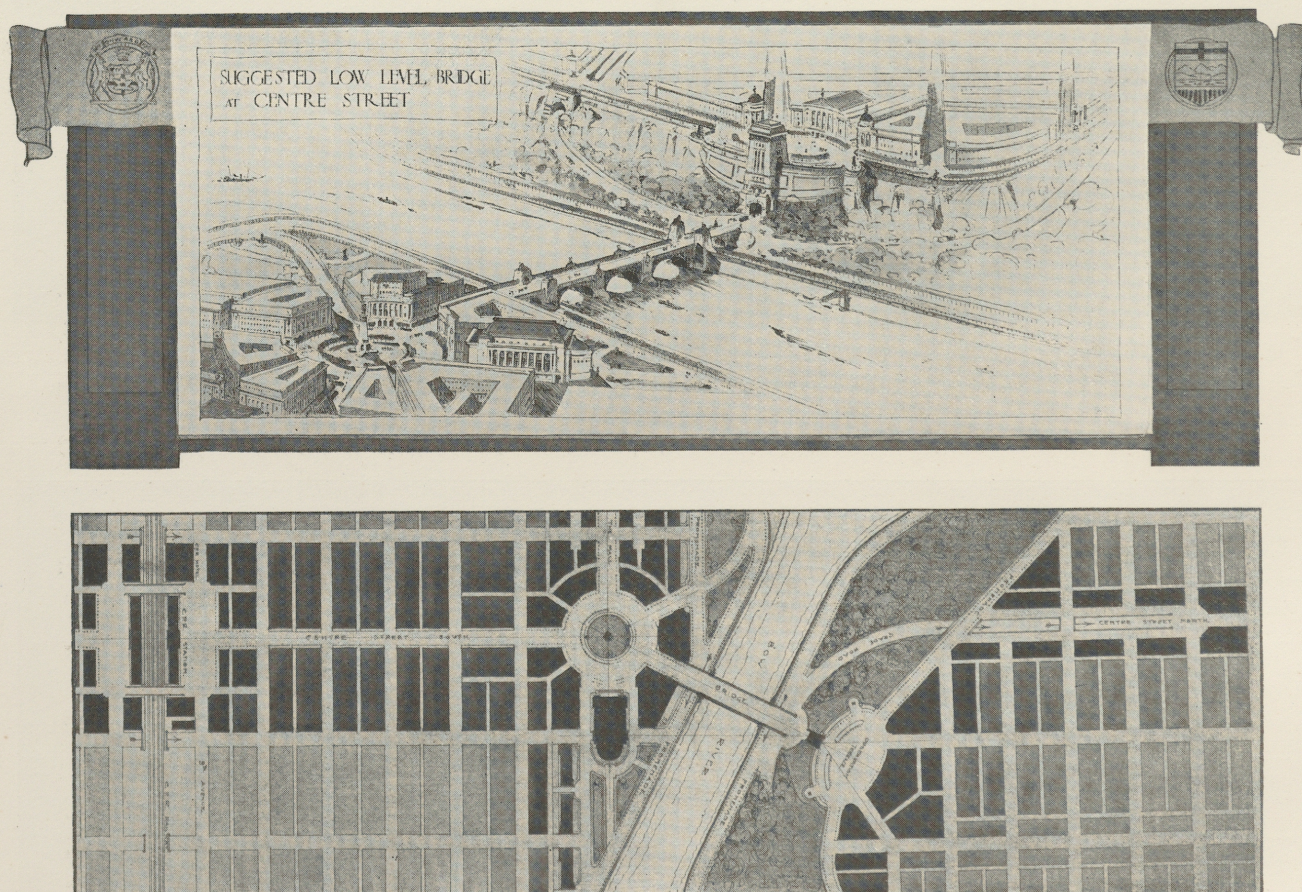


Fig. 18.—THE “LOW LEVEL” BRIDGE AT CENTRE STREET.

have been divided into two camps—one advocating what is known as the “High Level” Bridge, and the other the “Low Level.” We have examined both recommendations very carefully, and we have come to the conclusion that either, properly carried out, will give you a practical and satisfactory solution of all your difficulties, and in Figs. 18 and 19 we have tried to indicate the broad lines on which this can be done. Each method has its merits and its drawbacks, and what we have to say with regard to them will apply almost equally well to the other bridge which is proposed for Fourth Street West, so that in discussing the one case we shall deal with both, with the possible exception that while, as we shall show, it is better in every way that the line of Fourth Street West should not be interrupted

by taking the bridge across the stream at an angle to its main direction, on the other hand this treatment for Centre Street offers to our minds many advantages. This arrangement is shown in connection with what we call the "Low Level" Bridge (Fig. 18), and, as will be seen, it enables the bridge to be placed at right angles to the direction of flow of the river. This is not only important from the point of view of avoiding obstruction to the flow of the water, but also in connection with the proposed riverside boulevard, and the barrage which it is proposed to make lower down so as to form a boating reach on this part of its course. In both Figs. 18 and 19 the raised level of the river and the boulevards on either bank are clearly shown, so that the composition may be viewed as a whole and the bridges in relation to all their surroundings as they may ultimately be, possibly a considerable number of years hence.

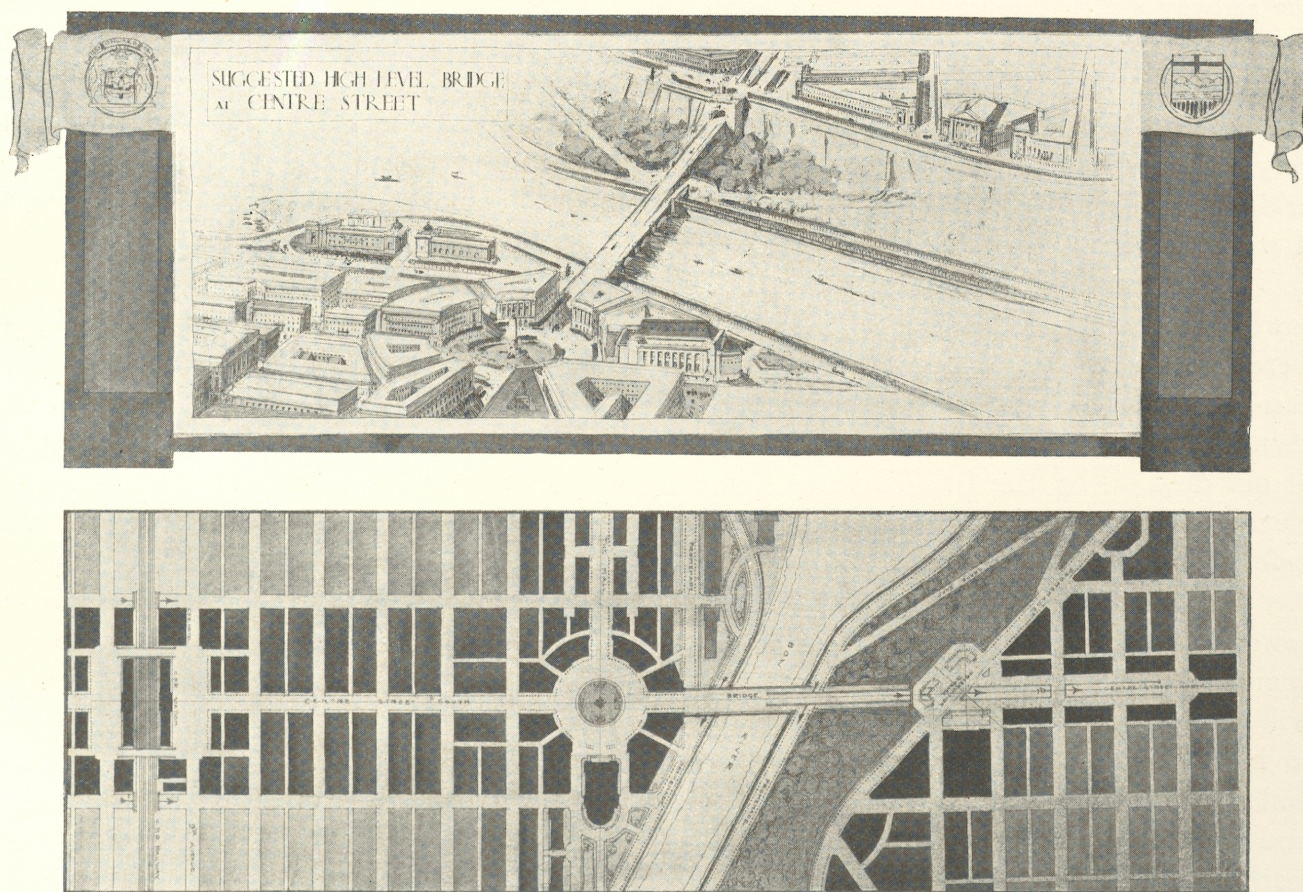


Fig. 19.—THE "HIGH LEVEL" BRIDGE AT CENTRE STREET.

It is very necessary, however, to guard against this question being obscured by side issues which are really immaterial to it. For instance, in Fig. 18 we have shown a definite treatment for the end of Centre Street on the one side of the bridge and also an elevator tower on the other, and while the former has some bearing on the placing of the bridge the latter is an entirely independent suggestion which may be carried out or not without affecting the bridge itself. As I stated in several of my lectures at Calgary, my own preferences incline more towards the "Low Level" Bridge shown in Fig. 18 than the other arrangement. I have already given one reason for this and for the position in which it is shown, which is not that quite of the present structure. There are, however, two additional reasons

which have influenced me in placing it where I have. The first of these is that it will do away with the steep and dangerous gradient of the present road up the bluff, and especially the very awkward corner halfway down. The road will leave the top of the bluff as shown in the illustration by means of a cutting, over which the promenade we propose to form on the edge of the bluff itself is carried on a bridge, and thus its level at the point on Centre Street where it at present leaves the higher ground will be much reduced, and, in addition to this, there will be a somewhat greater distance between this point and that at which it joins the bridge so that a still flatter gradient will be possible. On the other side of the river the advantage to be gained consists in the improvement of Centre Street so as to make it a self-contained, artistic composition. Illustration No. 13 shows that, at the other end of this length of street looking towards the railway station, a very effective composition is possible, especially when the lines of the shop fronts are set back as we suggest elsewhere, and in order to complete this composition it is necessary that there should be a balancing building facing the beholder at the opposite end. As will be seen from the plan of the bridge we are just discussing, this is obtained in a very effective manner by splitting Centre Street at this point and taking one branch over the bridge and the other to connect up with the riverside promenade, and a better arrangement it would be difficult to conceive.

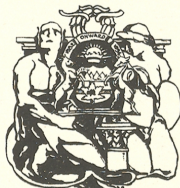
Before turning to consider the other scheme, we may just mention that the elevator tower shown on this drawing might be contrived so as to take street cars and automobiles were this desired, or, on the other hand, merely for the use of pedestrians, and that in any case it might become a revenue-producing feature if a small charge is made to the public for its use. In Appendix A. to this report will be found some figures and suggestions kindly placed at our disposal by the Otis Elevator Company with regard to the possibility of erecting an elevator large enough and powerful enough to deal with street cars, which puts the matter before you very concisely and clearly.

The other arrangement shown in Fig. 19 does away with the necessity of an elevator tower altogether, but of course, it involves such a large bridge as to be much more expensive than the low level arrangement and elevator tower together. In this case the great difficulty will be to obtain a balanced and harmonious composition as viewed from the river, and not to make the Bow look as ugly as, say, the Tyne at Newcastle, where the heterogeneous collection of high level and swing bridges carries no suggestion to the mind beyond muddle and inefficiency. We do not wish to suggest that the "High Level" Bridge would necessarily lead to such a state of things, in fact we have worked the problem out sufficiently in detail to be able to assure you that, should you decide on it, and will allow us to collaborate with your structural engineer in its design, we can guarantee to produce a composition which will be equally practicable and artistic. The main objections to it are, firstly, that its position does not allow of the closing of the vista along Centre Street in an effective manner, and, secondly, that this huge and costly erection will appear to rise up on end opposite to you as you walk from the Dépôt, and we feel most strongly that whatever else is done in Calgary, Centre Street should be made as attractive as possible because first impressions count for so much and it is the first thing visitors to your city see as they approach the town from the railway station. Not only this, but if you are going to spend a large sum of money on a Convocation Hall or Auditorium, it is no good providing a splendid building if the approaches to it are poor and mean.

CITY OF CALGARY

PRELIMINARY TOWN PLANNING SCHEME

PLAN SHOWING ADAPTABILITY
OF OUR SUGGESTIONS TO PURPOSES
OF FIRE CONTROL



THOMAS H. MANNION & SONS
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& NEW YORK

Key to Diagram
EXISTING FIRE HALLS
NEW FIRE HALLS
ROUTES OF DIRECT ACCESS

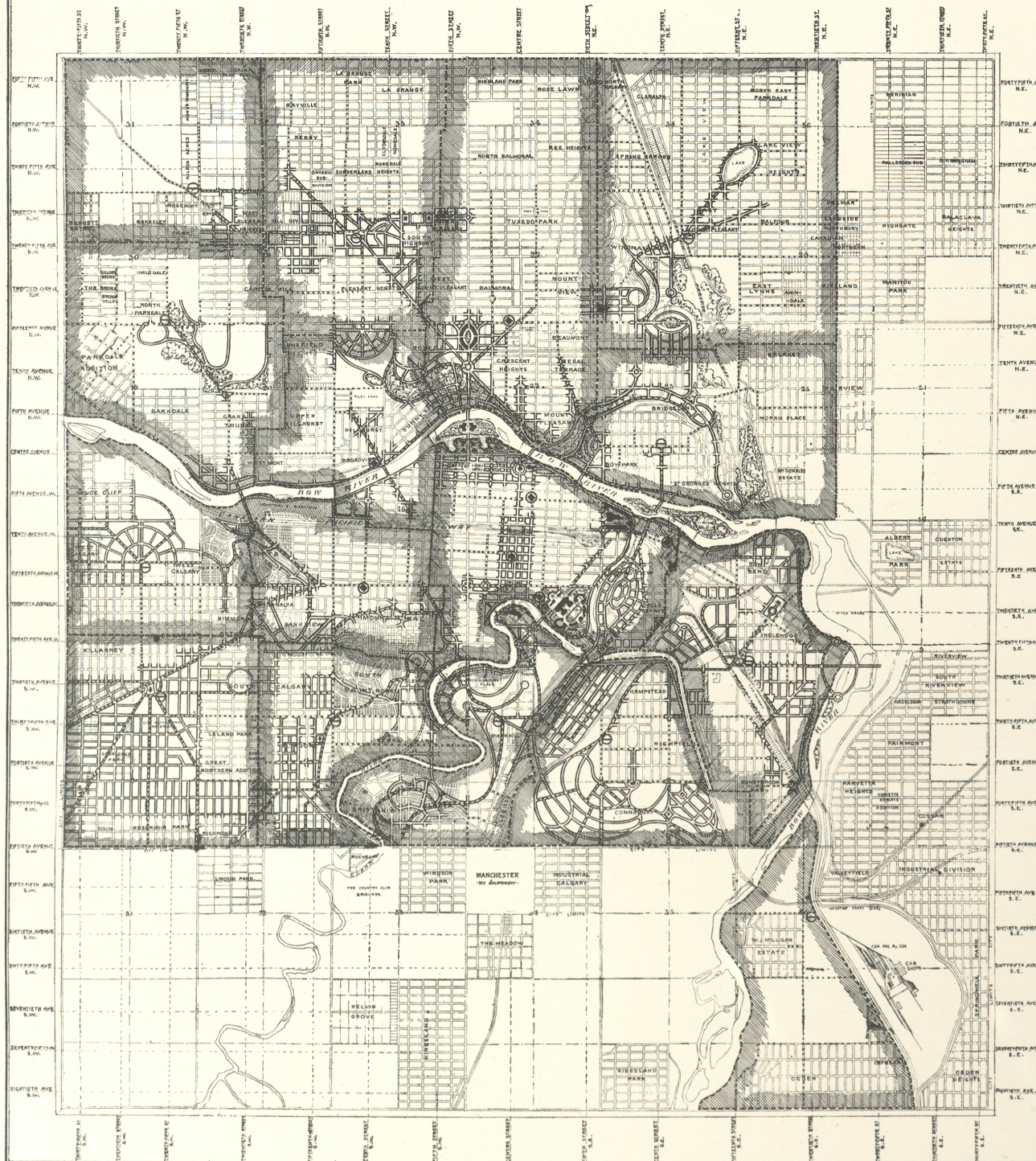


Fig. 20.

could not of course take place at once, but must be evolved gradually as the population increases and justifies one extension after another. There is not even in our suggestions any idea that the routes shown should at this early and preliminary stage be taken as final, in fact, were we to go into detail it would be immediately apparent that certain cars should be moved off Eighth Avenue on to either Ninth or Seventh, and probably others should be taken off Centre Street on to First Street East or First Street West, as otherwise congestion in the centre of the city will shortly become acute, but these are details to be worked out in practice, or anyway at a latter stage in the proceedings than the present. The question again as to whether the existing form of street car will ever be superseded in the outlying districts by trackless trolley cars, or some form of self-contained gasoline-driven vehicle, does not affect the case, for the route shown could be employed for any of these forms of locomotion, or, in fact, for all forms of public vehicles.

The system adopted in planning the car routes has been the same as that proposed for the other traffic facilities, that is to say, a combination of radial and gyratory routes, only in this case the radial routes proceed to and fro between the centre of the city and the suburbs where they are fed by the gyratory feeders, such as that which, at the present time, runs between Glengary and South Mount Royal, thus feeding the blue belt line. The well-known principle has also been observed which results in two lines of cars using the same route when the traffic is thickest, and then dividing to serve two separate more thinly populated districts.

We would add that our proposals make use of all the existing car routes with only two small exceptions. One very short length of line in Upper Hillhurst is rendered obsolete by the provision of a diagonal route, and the present tracks through Sunnyside are superseded by the new route which will go along the promenade by the riverside, and the other ones which will cross the river by the bridges which are proposed for Fourth Street West and Centre Street.

In addition to the street car routes, we have shown on the illustration we are now dealing with (Fig. 21) the approximate positions in which we propose to erect four or five new suburban railway stations, which, however, in one or two instances, will not be required until the present population is considerably increased. The one at Mount Pleasant is at a point where a number of important roads converge, and should this district develop as rapidly as is expected, a rail motor service between it and the central station would be much appreciated. Such a service between the central station and the one shown at Ogden and the other at Manchester, should greatly encourage industries to locate themselves at these two points without in any way injuring the splendid car service which at present exists in connection with these localities.

Finally, we would point out that there is no intention whatever that all the routes shown should be carried right to the city boundaries, as indicated on the plans, until this is necessary. They are merely so indicated in order to make it clear that such extensions may ultimately be necessary as well as possible, and this may not happen in some directions for many years to come.



Fig. 22.

PART IV.

THE CIVIC LIFE.

UNDER the very comprehensive title of "*the Civic Life*," we propose to deal with all those many aspects of city planning which bring us more intimately into touch with the daily life of the people, and of course first and foremost both geographically and also in importance to the scheme, comes the civic centre. Strictly speaking, there are in every town many civic centres, political, ecclesiastical, commercial or professional, but we propose in this report to adopt the meaning which you people at Calgary have given the term—that of a great place or plaza, round which to group all those large public buildings which are essential to every modern city, but which, in the majority of cases, are so disposed about the town as to give no collective effect, thus losing a great opportunity and a great means of gaining additional beauty. At the present time there is every indication that Calgary would have followed the example, the bad example, of older and more primitive towns by scattering her public buildings all over the city had it not been for the action of those enlightened enthusiasts who have created the demand for a comprehensive planning scheme.

The first question we had to decide in relation to this civic centre was of course that of its placing. We found, on going into the matter with those most interested in the subject in Calgary, as well as by references in the press, that public opinion was very sharply divided as to whether it should be placed on Centre Street or Fourth Street West, and the solution of this problem which we have attempted on our plans is to place it on both. Compromises, like comparisons, are apt to be odious, but we think that, although undoubtedly our suggestions are of the nature of a compromise, this does not apply in the present instance, and even so, although a compromise has resulted, it was not with the idea of creating one that we adopted the methods shown on our plan. Both Centre Street and Fourth Street West present unique opportunities, each of a different kind, for the formation of such a centre, and by adopting the lay-out which we have shown, we have been able to make the most of them all. We have already spoken of one great advantage which Centre Street gives from the æsthetic standpoint, and that is the possibility of creating a self-contained composition balanced accurately in every part, but there is also this practical advantage, that it is the direct means of access from two out of three of the railway depôts, and so offers especial advantages for the placing of those buildings which must necessarily be easily reached from the station. Notable among these, of course, is the Auditorium, which closes the vista at the Eastern end of the Mall or open space round which all the buildings are to be grouped.

The whole scheme is shown most clearly in the enlarged plan of the centre of the town, reproduced in Fig. 9, while the frontispiece gives an elevated view over the western extremity of the Mall and its surroundings, including the approaches to the new bridge on Fourth Street West, crossing first Princes Island and then the Bow river. These two drawings examined together will show more clearly than anything we can say most of the advantages to be gained, not only from the formation of a civic centre, but also from our proposals for its placing and design. But there is one feature which is not so prominently shown on the drawing as to need further reference, and this is the fact that the riverside promenade, which it is proposed

to make all the way along both banks of the Bow will, at this point, make the civic centre apparently twice as large and twice as important and help it in every way.

As will be seen from the perspective drawing, this promenade will pass to the rear of the two large buildings which have been proposed for either side of the approaches to the bridge, and it will also be seen that these buildings are provided with towers to mark the end of the bridge just in the same way as the pylons do in the case of the Pont Alexandre III., at Paris, thus producing a very fine effect.

It may be objected that the land on which this civic centre is to stand is at present partly occupied by lumber yards, but there can be no doubt that these are far too near the heart of the city to remain where they are indefinitely, and the time will come when economic conditions will cause their removal to a less congested neighbourhood, just in exactly the same way as the great industries are one by one moving away from the East End of London into the surrounding country. Whether you should expedite this process or leave it to work itself out, as it inevitably must some time soon, will of course depend on circumstances as they arise.

A question that will naturally occur to you as you look at our plans for this portion of the work will be—What are the names of these various buildings shown and to what purposes are they to be dedicated? Some of these are indicated on Figs. 25 and 26, but we would point out again that this is a preliminary town planning scheme, and that to enter into full detail even on this subject of the civic centre is not possible at the present time. It is sufficient if we say that undoubtedly before very long you will have to build a new City Hall, a new Post Office, and several other public buildings besides the Auditorium and undoubtedly the first of these should take the most commanding position of all, facing the full length of the Mall from its eastern end, as clearly indicated on the frontispiece. When the time comes, a proper scheme in greater detail will be necessary for the whole of this centre, showing provision for the public buildings and banks and other semi-public places of resort, including a museum, a library, and an art gallery, and that whatever buildings you need at the moment should be erected according to this plan, leaving the others to follow as they are wanted, keeping strictly of course to the general lines of the design as a whole, so that every part may balance against every other part. This is how Paris has been made so beautiful, and there is no doubt that Calgary can do it too without it really costing you a cent if you only have the patience for the sustained effort which is necessary.

One feature clearly shown on the perspective view is the formation of a boating reach round about Princes Island. This should be very easy, as there is something of the sort at the present time, and one of the two bays shown in the view, that is, that to the right-hand side of the picture, exists almost as shown. It is proposed that the other one on the left hand of the bridge should be made by excavation to correspond. We are informed that the Canadian Pacific Railway Company in connection with their irrigation canal intend to make a barrage about half or three-quarters of a mile south of St. George's Island, and if this does not raise the level of the water sufficiently to make a reach for boating right back to the west end of Princes Island, the present weir at its east end might be retained with a boat slip, such as those on the Thames and the Ouse, in England, so that you will have a splendid boating reach. Even though a second weir to the south-west of St. George's Island

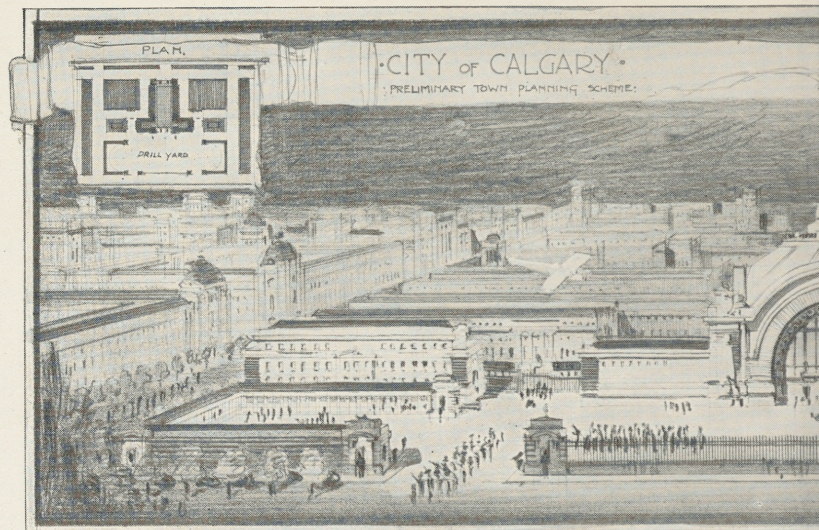


Fig. 23.

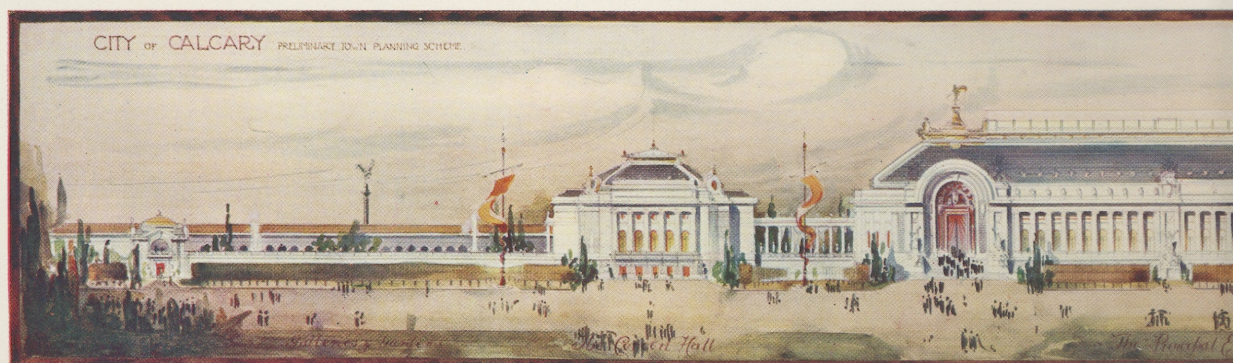


Fig. 24.—THE EXHIBITION BUILDINGS ON VICTORIA PARK. FROM THE NEW DIAGONAL ROAD JOINING

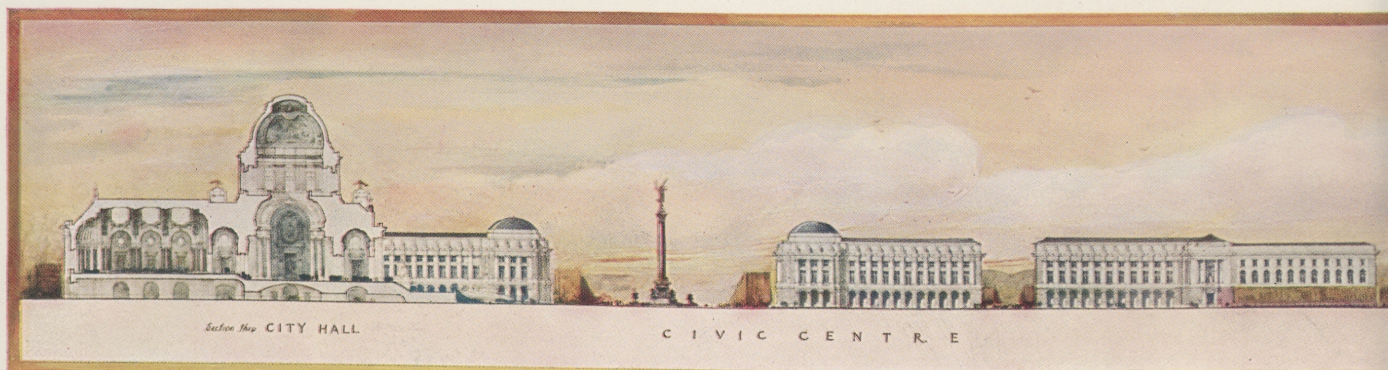


Fig. 25.—SECTION THROUGH THE CIVIC CENTRE, SHOWING HOW THE AUDITORIUM OR CONVOCATION HALL IS PLACED.

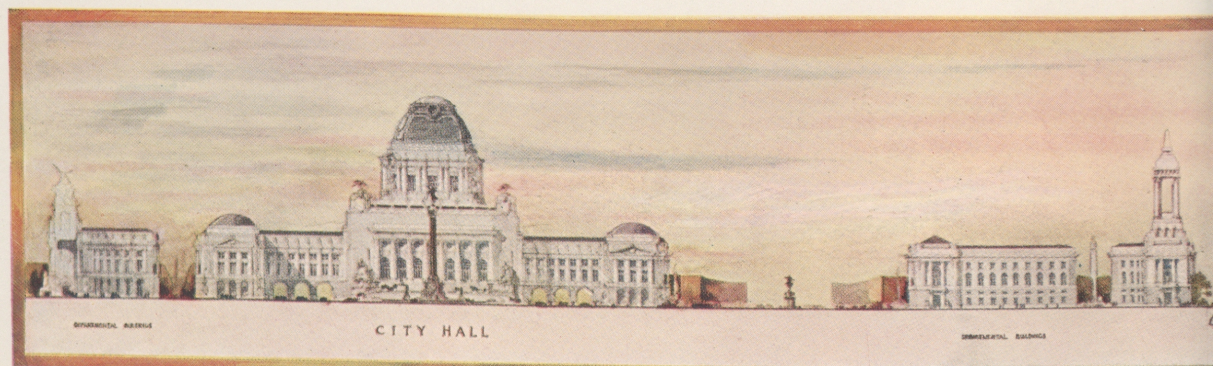
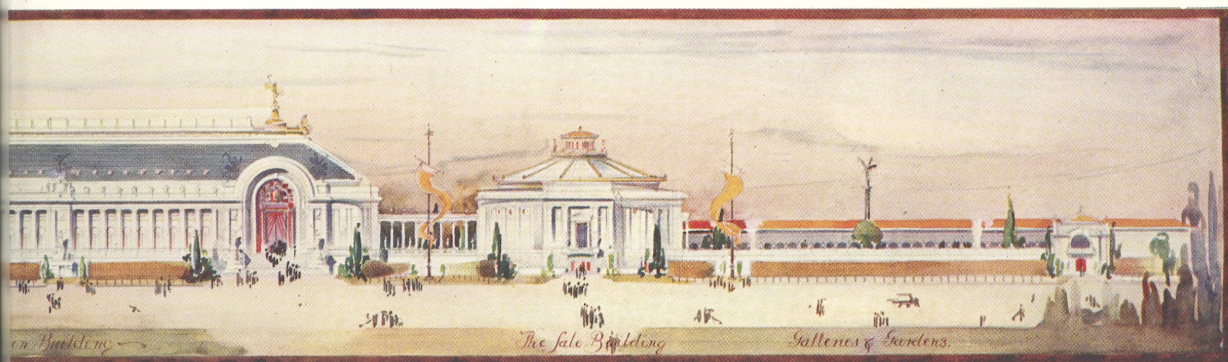
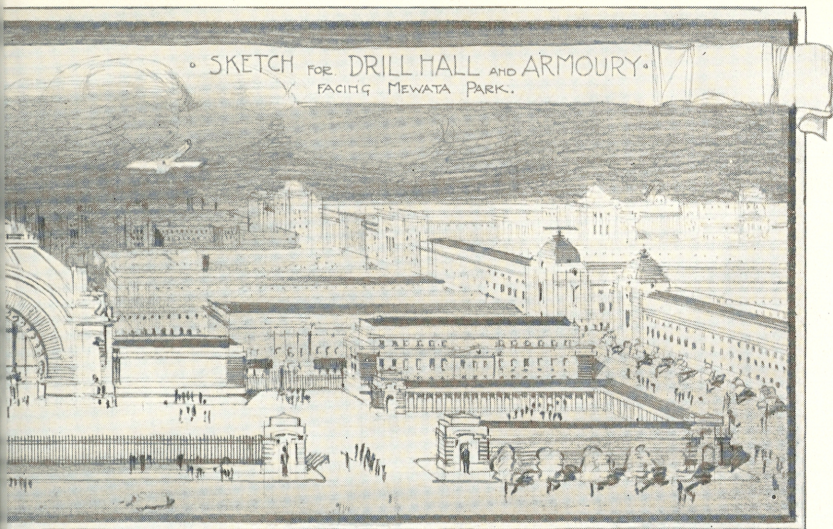
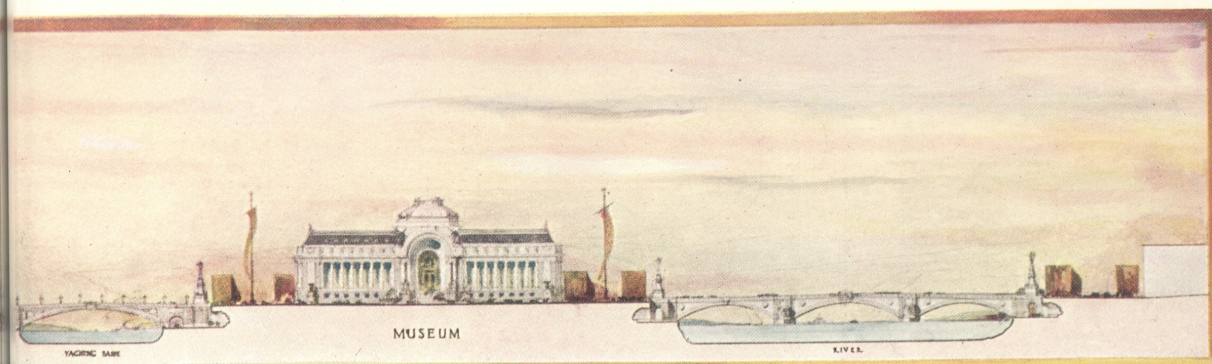
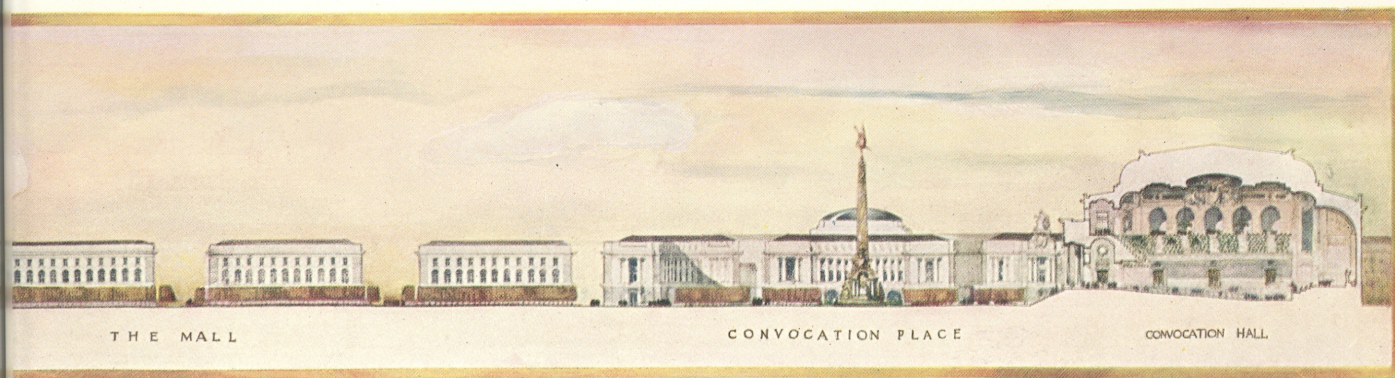


Fig. 26.—SECTION THROUGH THE CIVIC CENTRE SHOWING THE BRIDGE ACROSS TO PRINCES ISLAND A



TWO NEW STATIONS.



FORWARD TO SUNNYSIDE.

is necessary, this should also be provided, and could be constructed no doubt without very great expense.



It will at once be seen how well your beautiful Knox Church and the new Courthouse and Land Titles Building will fall into the general scheme for the beautification of Fourth Street West, and in connection with the last two of these buildings we propose that you should very seriously consider the advisability of completely clearing the block to the south of that on which the buildings stand, and its conversion into a town square similar to the Central Park in its general treatment. The ground is at present occupied by buildings of a very temporary nature, and we think it would even pay to buy it now as an investment for re-sale when the surrounding blocks have become thickly built up, so that there can be no doubt that this should be acquired at the present time before expensive buildings are put upon it, or the price of land in the neighbourhood reaches an even more prohibitive figure than that demanded for it at the present time.

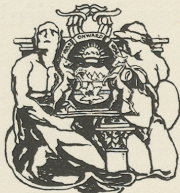
After the civic centre comes the various small social centres which it will be desirable to erect in the outlying portions of the city for the provision of an assembly room for public functions and parochial teas and the like together with a club house, a branch library, and such recreational facilities, for use specially in the winter, in addition to tennis lawns, bowling greens, etc., for the summer months (Fig. 27). Our general suggestions as to how these should be planned have been clearly shown on the designs for the creation of such a centre on Fifteenth Avenue, which we prepared at the request of your School Board, and in connection with one of their new schools. We need only say that this arrangement in principle, but of course not in detail, is applicable to almost any part of the suburbs of your city, and we were very glad indeed to find that our proposal that the school buildings and the social facilities, both indoor and out of doors, should be grouped together, met with your School Board's complete approval, for by this means we are sure the best results can be obtained. We would strongly advise that in every case where the land is available, and where a new school is to be erected, the formation of a social centre in connection with it should be seriously considered. It is far better they should be grouped thus than round the places of worship, for of course the school is a public inter-denominational building, and so the social facilities are not so likely to become the property of a narrow clique. By adopting the form of lay-out shown on the plans we laid before your School Board, not only will the very most be made of the ground at your disposal, both from the practical and the æsthetic sides of the subject, but the social centres so created will become a rallying point round which the life of each suburb will centre, and so help to create a spirit of citizenship and *esprit-de-corps* which will make for the success of your city from a residential point of view, especially on the part of those classes least likely to be reached by the provision of great central facilities such as your beautifully equipped theatre and the proposed auditorium. Thus it will be seen that the central civic centre with its large buildings and comprehensive planning and the smaller social centres in the suburbs are really parts of one great scheme, and have a reciprocal relationship, the one providing for the great international and inter-state concourses, and the other for those lesser functions of a more domestic kind which are just as necessary to the social life of the community.

With reference to the housing of the higher educational facilities at Calgary, I have already advised your University authorities, and it is not therefore necessary to deal at length

CITY OF CALGARY

PRELIMINARY TOWN PLANNING SCHEME

PLAN showing EXISTING AND
NEW SCHOOL SITES 
AND PUBLIC BUILDINGS 



THOMAS H. HARRISON & SONS
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& NEW YORK

Key to Diagram
EXISTING SCHOOL SITES 
NEW SCHOOL SITES 
PUBLIC BUILDINGS 

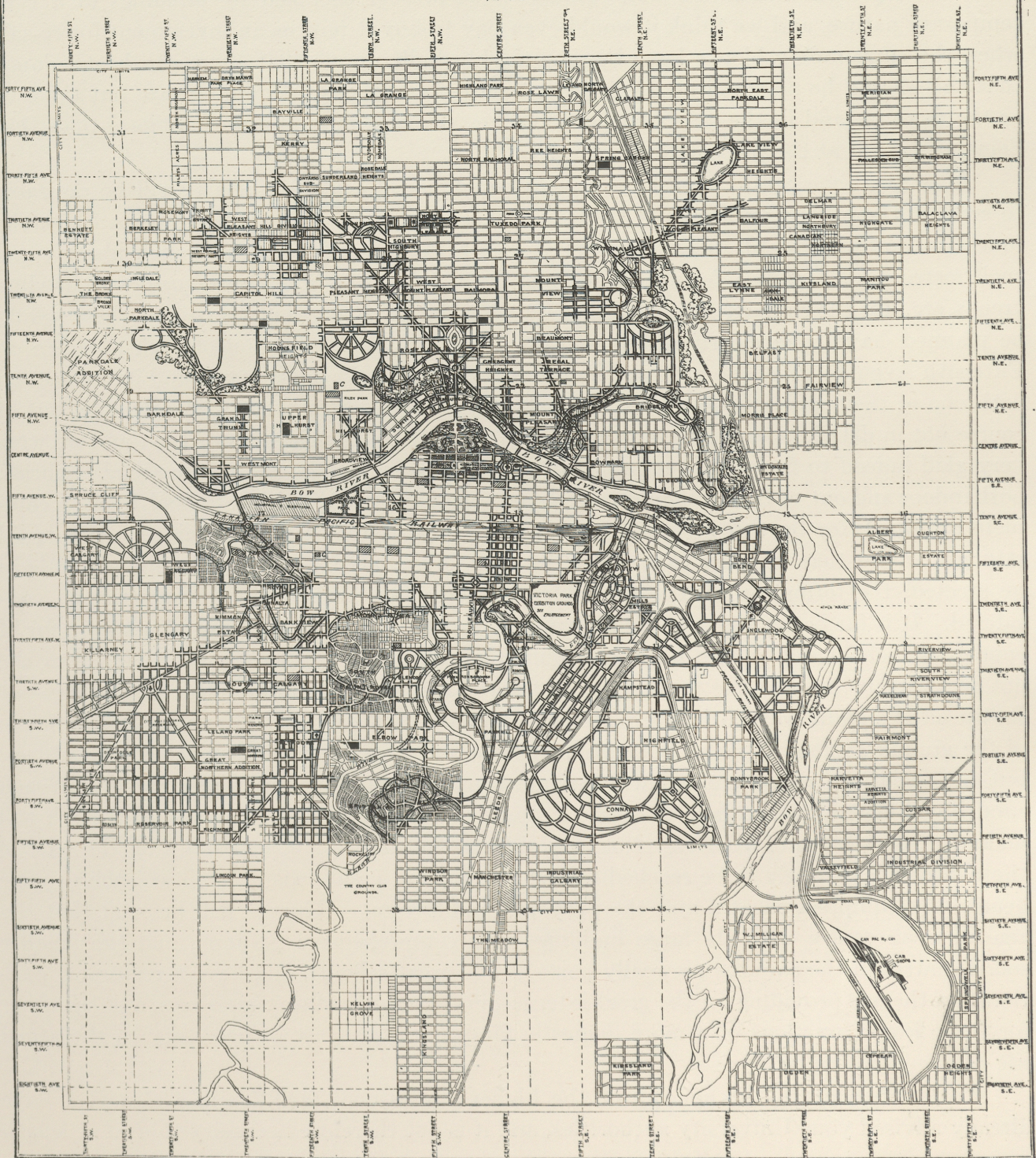


Fig. 27.

with the subject in this report. As then stated, I consider that you have a great opportunity of creating an educational centre which shall be famous throughout the Dominion for its size and the facilities which it presents to students. Not only the University, but also we understand the Western Canada College, the Mount Royal College, and the Episcopal and Roman Catholic Bodies are all contemplating the erection of more or less extensive and up-to-date buildings, and if these and all other educational bodies in your city, dealing with higher education, can be got to work together and formulate a comprehensive scheme, you may obtain a result which, both in its buildings and the facilities it would give to the students, would be unsurpassed elsewhere.

Each group of buildings belonging to a separate body would, of course, be under its separate and exclusive control, and provide its own professors and lecturers, and be responsible for its own pupils, while with the aid of a central inter-collegiate hall, collective effort would be possible both in the way of sharing the services of visiting professors and the provision of facilities for those out-of-the-way subjects for which the separate bodies, unaided by co-operation, would be unable to find either the funds or the number of pupils to justify the expense.

One of the buildings which you no doubt will have to provide in connection with some of your social centres will be a gymnasium, and this again will give us a connecting link between the civic and social centres on the one hand, on the other, the armoury, which has been so much discussed lately. Of the many sites suggested for this feature, two were of such obvious superiority to the remainder as to eliminate all but these from the question of its site planning. We refer to the suggestion that the armoury should be placed either close to the freight yards by the mouth of the Elbow River, or else on the Mawata Park. After giving both these suggested sites very careful consideration, and visiting them more than once with a special view to examining into their suitability for the purpose, we have no hesitation in recommending that the buildings should be erected on the site we have shown close to Mawata Park, and, in fact, at the end of Seventh Avenue where it is closed by the park. We felt, however, very strongly indeed, that as your city already possesses far too little open space in its central area, that which does exist should not be curtailed by placing the armoury on the park itself, but that a site should be found for it overlooking it and where the building will serve to beautify this at present somewhat barren area. The only way in which you should allow the scheme for the armoury to encroach upon the existing open ground is by placing on it, and on the adjacent road, the necessary spur-tracks to connect it with the Canadian Pacific Railway Company's main line, and these should be arranged in as inconspicuous a manner as possible. Fig. 9 shows the site planning of the building, and Fig. 23 contains suggestions for its general scale and arrangement, and from a comparison of the two, it will be seen that not only will it be a great ornament to the park and centralise the main avenue, which we propose should be created across the park itself, but also it will provide a fine terminal feature for Seventh Avenue, and will give that street very greatly added dignity at its western end. It is already closed by the park, so there can be no possible objection to closing another block in order to obtain the fine effect along the remainder of its length to which we have just referred.

The Parks, Public Gardens, and Playgrounds of any city must necessarily play a very large part in its civic life, and for this reason we have given very considerable time and thought to this side of our proposals, both on the ground and over the drafting board. We felt this

matter to be the more urgent because, not only is the centre of your city so poorly supplied with open spaces, but, unfortunately, most of the work done toward the beautification of what parks you possess has resulted in more or less failure and very little success. This may seem a strong assertion to make, but I have in mind the large sums of money spent in Central Park on what is little better than theatrical scenery, and in St. George's Island Park on a pavilion which defies all the canons of art and the laws of architecture. We sincerely hope that, when the time comes to spend more money on these areas, we may be allowed to advise as to how it should be laid out in order that the best return for the amount available may be obtained.

In several of the addresses which I gave in Calgary, I strongly urged the consideration of a complete Park system, which should be adequate to the needs of the existing population and expand with the inevitable growth of the city. At the same time I deprecated any considerable expenditure on the immediate development of the scheme, my reason being that, quite apart from financial considerations, a great amount of experimental work like that undertaken by the Brothers Ross at Indian Head and Regina, ought to precede the actual planting so that we may know for certain what to grow. In this connection I need not remind you that Calgary differs from any other place in Canada, and up to now, its possibilities for the growth of trees, and shrubs have not been explored, or on the other hand, have been entirely misinterpreted. Thus, I saw on one of my earlier visits to your cemetery, a large consignment of rhododendrons, azaleas, and tender roses purchased by a man who is no longer employed by your City, for whose growth there was not the faintest hope. On the other hand there are a large number of indigenous trees and shrubs of great beauty which have never been propagated or tested under proper conditions, and we are therefore short of the necessary data upon which we must finally rely for our effects.

To supply this data, I would suggest that your Park Superintendent, who possesses quite a wide knowledge of arboriculture, should be encouraged to get together an experimental section and nursery which should be easily arranged, as the Provincial Government might be induced to share in the expense, for it would be of benefit to the whole district, and to Alberta generally. This experimental work, we are confident, would lead to marked results, and incidentally remove the opposition of that large band of pessimists who denounce every suggestion for a Parks' scheme on the assumption that "nothing will grow."

A few years ago people stated quite emphatically that nothing would grow at Indian Head or Regina. As to the first place, I found on my last visit twenty-two varieties of hedging plants, twenty-four varieties of pines and conifers, and scores of varieties of flowering shrubs, and a number of trees. At Regina, Mr. Malcolm Ross recently published a list of trees and shrubs which had proved hardy in the city, and we would strongly recommend that a deputation should be sent to see his work and report on the establishment of a similar experimental nursery for your own district.

The conditions at neither Regina or Indian Head correspond very closely to those of Calgary, but the same kind of experimental work there would produce equally satisfactory results.

Included in the areas which I propose to acquire, will be found many spots of rare natural beauty, and in one or two instances properties where planting has



Fig. 28.—VIENNA HAS DONE THIS ON THE SITE OF HER OLD FORTIFICATIONS. CALGARY HAS A MUCH FINER CHANCE ON THE SITE OF HER BLUFFS. WHAT ARE YOU GOING TO DO WITH IT?

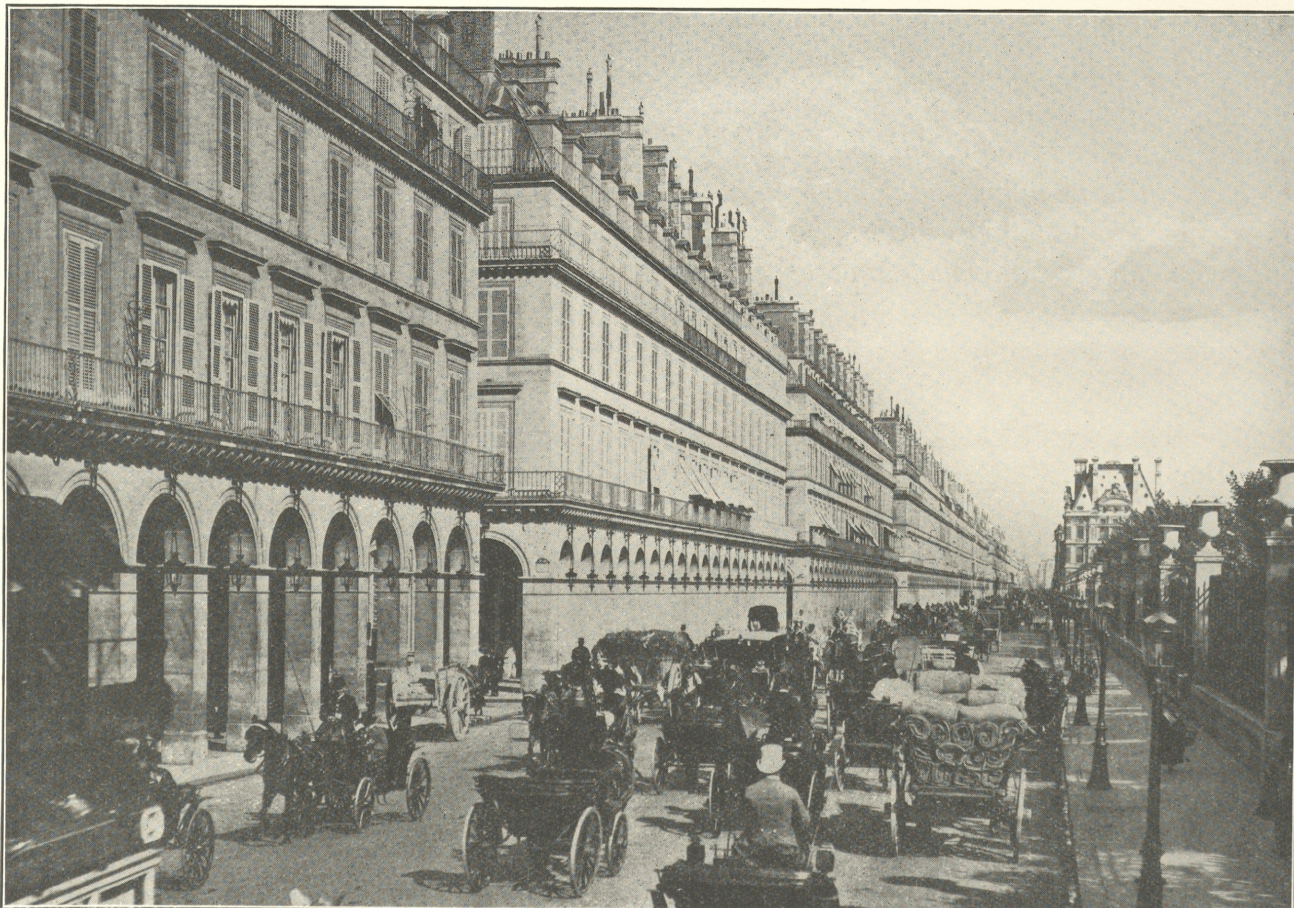


Fig. 29.—RUE DE RIVOLI, PARIS. THIS IS HOW WE PROPOSE SUCH STREETS AS CENTRE STREET AND EIGHTH AVENUE SHOULD BE WIDENED BY CARRYING THE SIDE WALK UNDER THE BUILDINGS (See Fig. 13).

been successfully carried out. If acquired, these natural reservations would atone for the necessary delay in laying out a more elaborate park system. They follow to a large extent the banks of your two rivers, the Bow and the Elbow, which should be rigidly preserved for the use of the public. I would again remind you that you now have powers under the Provincial Acts to compel owners to reserve a roadway along all river and waterfronts to a width of sixty-six feet, which will secure to the public the nucleus for a scheme of river drives and parkways, and, incidentally, regulate the price of these areas.

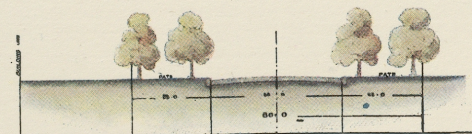
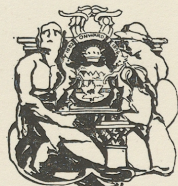
As regards the centre of your city, all that it has been possible to do in the way of adding to your open spaces is to suggest the acquisition of Prince's Island and the formation of river-side promenades on both your rivers, and that St. Patrick's Island should be laid out as an addition to the St. George's Island Park with connecting bridges. It has been objected to this proposal that St. Patrick's Island is sometimes flooded completely, but this only happens at such very rare intervals as hardly to matter if any work which is done is so contrived that it will not be destroyed by an occasional inundation, which should not be difficult. A little further out to the east we have proposed the purchase of a considerable tract of country, which is at present finely timbered, in the north-east portion of Bow Bend, and also the rifle range on the opposite bank of the river. On the opposite or westerly side we strongly recommend the purchase of a large area of flat country too low lying for successful building operations between the existing Shaganappi Park and the Bow river, which, as will be seen from Figs. 40 and 41, is most exceptionally beautiful, and would need very little alteration to make it into one of the most sought after resorts in the whole district. There is an island in the river close to it, and this should form part of the park and would allow of very effective treatment for the bridge which will be necessary to connect with the other bank and the Bowness car route by which it will be very easily reached from the city. This bridge, not being on a traffic route, is not shown on the plans accompanying this report.

Fig. 14 shows very clearly in a general way our main proposals for these and other park areas to be provided within the city limits. Taken as a whole, what we propose to do is to expropriate all ground which is too low and marshy to be healthy and convenient for building upon, and also all ground which is too steep for the purpose. It is fortunate that these are the very pieces of ground which will make the finest and most picturesque parks. The illustrations given in Figs. 5, 6 and 41 will show more clearly than anything we can say how well adapted the steep sides of the bluffs surrounding Calgary are to the purposes of parks and recreation grounds. They provide you with exactly the same opportunity for the creation of a beautiful belt of parks all round your city, as the demolition of the fortification round Vienna and other continental towns gave to them, and we trust that you will act in the same foresighted and enlightened manner in taking advantage of the present opportunity. Fig. 28 shows what has been done in this way in Vienna right in the centre of a thickly built-up city, and your opportunity of Calgary is infinitely finer if you will but seize and make the most of it. Elsewhere we have shown how these same bluffs can be utilised to provide the starting point for automobile runs round your city and away from it in every direction, so that, were no other sites available for public parks and open spaces, you would still have an opportunity which is unsurpassed anywhere.

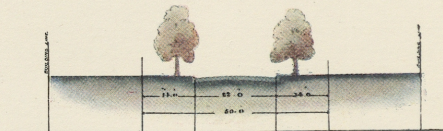
CITY OF CALGARY

PRELIMINARY TOWN PLANNING SCHEME

DRAWING. No



SECTION OF 80 FEET ROAD.

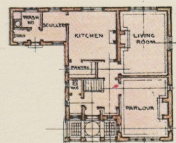


SECTION OF 50 FEET ROAD

TYPE OF ENGLISH
ARTISANS DETACHED DWELLING
FOR ADAPTATION



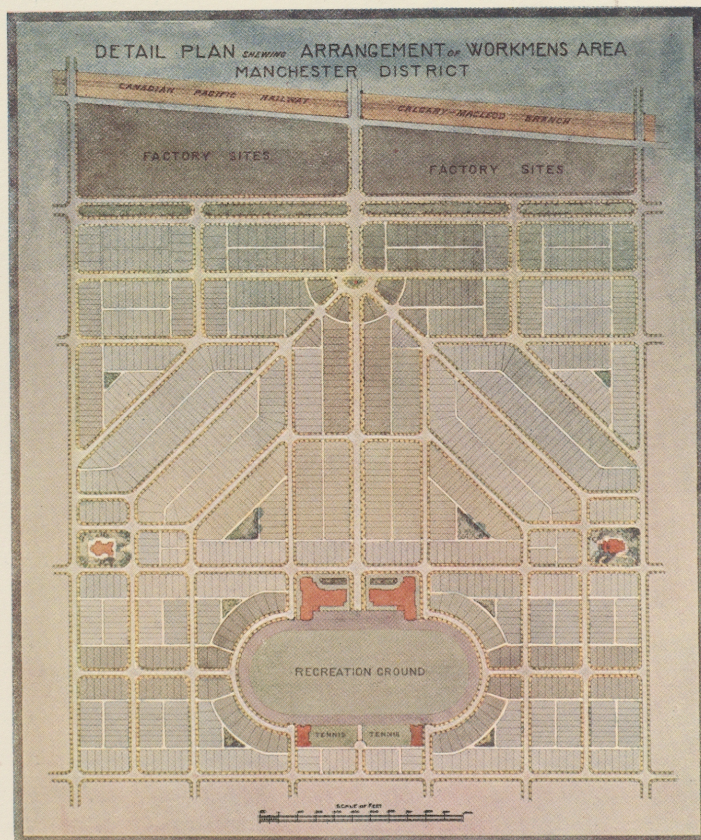
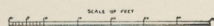
SIDE ELEVATION



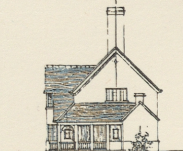
GROUND FLOOR PLAN.



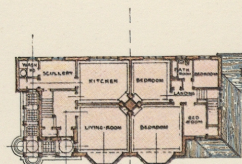
FRONT ELEVATION



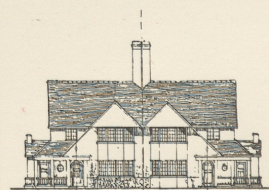
TYPE OF ENGLISH
SEMI-DETACHED ARTISANS-DWELLINGS
FOR ADAPTATION



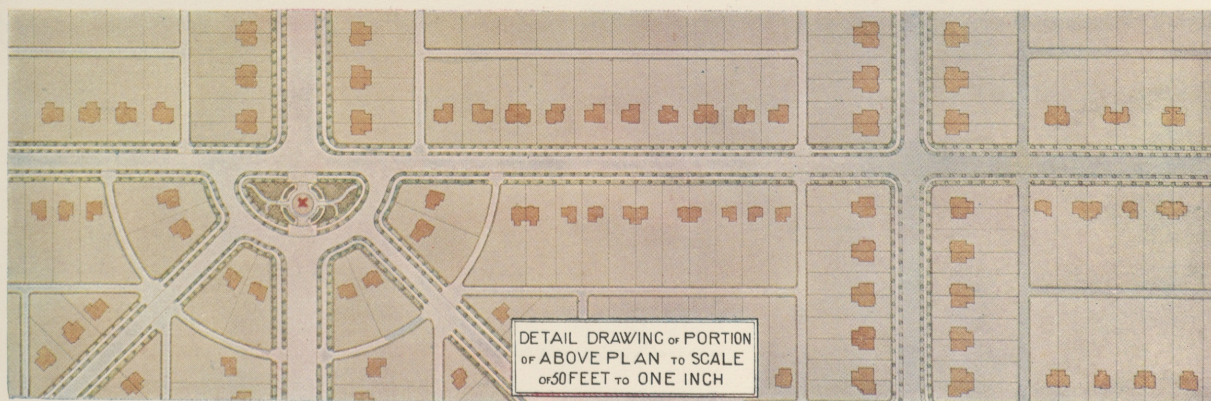
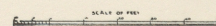
SIDE ELEVATION.



GROUND FLOOR PLAN, UPPER FLOOR PLAN



FRONT ELEVATION



DETAIL DRAWING OF PORTION
OF ABOVE PLAN TO SCALE
OF 50 FEET TO ONE INCH

Fig. 30.

With regard to the smaller recreation grounds which it will be necessary to provide in order to give a little relief from the monotony of block after block of residential property, and to provide room for games and a few bright flowers and shrubs, the President of your Commission has pointed out to us that the block immediately south of Twelfth Avenue and east of Fourteenth Street West has no building on it of importance yet, and ought to be acquired for this purpose. There is also the narrow triangular plot where Fifteenth and Sixteenth Avenues join, and many other such small pieces of ground which will occur to you, too numerous to mention here, and which should be seized whenever opportunity offers of obtaining them at their market value, and these, together with the social centre schemes already referred to, should provide amply for all requirements in this direction. Fig. 14 not only shows the various parks and open spaces, but also indicates the main lines of communication between them, and our intention in specially marking these is that they should be treated as pleasure promenades, with as much trees and grass as the space will permit, and developed as high-class residential property so as to form a chain of park-like avenues and boulevards connecting up every part of your city with every other. By this means your parks and open spaces will be much more patronized than they otherwise would be for, instead of having to traverse a number of perhaps monotonous streets in order to reach them, persons will approach them through these park-like avenues, which will be almost as attractive as the open spaces themselves, and so encourage those who otherwise would not do so to visit them. The great thing is to make sure that there will be at least one small open space within easy reach of every dwelling in the city. By "easy reach" we mean so near that even quite small children can go to and fro between their homes and the playground without danger or fatigue. We would also suggest that you very carefully consider whether it would not be possible to insist that all subdividers dedicate a minimum proportion of their holdings to the provision of open spaces of some kind or other in the case of all sub-dividing done from now onwards, whether in response to the terms of our plans or otherwise.

We have dealt with the subject of planting your parks elsewhere, and we need only repeat that your opportunities in this direction are very great indeed.

We would close this portion of our report with a short reference to the housing of the working classes in Calgary, and in particular to the two detailed plans which we have prepared for the development of the Manchester and Connaught areas as working class suburbs, more or less on what are known as "garden suburb" lines. These are reproduced in Figs. 22 and 30, and before we go on to describe our proposals, we would point out that these two illustrations also serve to show how our preliminary town planning scheme will have to be detailed in all its parts from time to time before it can be carried out. If you will compare these two plans with the same areas on our general plan, Fig. 1, they will show better than anything we could say the relationship the preliminary scheme will have to the fully developed town plan to be undertaken hereafter.

In the accompanying plan a serious effort has been made to show how far that garden city idea which is receiving so great attention throughout the whole American, and especially the older cities of the United States, and also in Eastern Canada, may be applied to your particular needs. We venture to state that these plans for Calgary possess the distinction of being the first attempt to solve, theoretically, the particular housing problems of the West which are becoming day by day increasingly persistent and urgent.

The history of all New World cities has shown that usually workmen either prefer or were compelled to own their own houses each built singly on its own plot, usually a twenty-five feet plot, without any variety in mass or unity in design. Thus has been created a monotony almost as bad as the interterminal rows common to European industrial cities, and has evolved methods of housing the working classes which are both practically bad and disastrous to all cohesive civic expression. But the model housing of the working classes which has seen its highest development in English industrial buildings, such as Bournville, Port Sunlight, Erswick and also at Ulm in Germany, have given a solution based on the old English village where cottages are grouped in twos, threes, or fives, with an occasional detached one standing in its own garden. On the financial side this arrangement is not so cheap as interminable rows all the same in character, but is much less expensive than single cottages each on its own plot.

Two sites have been chosen for demonstrating the housing of the artizan classes, the principal one placed near the factories on the Manchester area, and the other on the east portion of Connaught area. There is an essential difference in each, and this has, of course, controlled the form of lay-out. The Manchester area is devoted entirely to workmen's dwellings and two large working-men's hostels based on the model first built by Lord Rowton in London, and since freely copied on the Continent and in the United States. These two buildings would, by their mass, secure an architectural crowning point, and meet a much felt want by giving suitable accommodation under the best hygienic conditions for unmarried men. The sites chosen for them are peculiarly suitable as, not only is each building surrounded on three sides by wide roads, but on the fourth side they look over and adjoin the large recreation ground which forms a feature of this residential site. The location of the recreation ground also provides specially favourable sites for larger residences suited to the needs of superintendents, departmental, and works managers, or others with a more ample salary.

An effort has been made on the Manchester area to introduce a radial form of plan in conjunction with the ordinary rectangular lay-out. This is an arrangement which secures admirable areas for school sites and church buildings, and others of a public or semi-public nature. These occur in the triangular plots, and the axial ones at the terminals of the radial roads.

* The entire area included in this lay-out is 220 acres, and is divided from the factory sites by a broad boulevard to be planted with trees and shrubs. This boulevard covers $4\frac{1}{2}$ acres. The road area is $60\frac{1}{2}$ acres. Areas devoted to two school sites, 2 acres. Area devoted to hostels, $3\frac{1}{2}$ acres. To recreation ground, 16 acres. To children's playground, $1\frac{1}{2}$ acres. There is thus a balance of 132 acres devoted to building sites which is divided into 1,200 plots. The actual area of macadamised roads and sidewalks necessary, and which we consider ample for all purposes, is 37 acres, or a reduction of 48 per cent. on the form of development which has hitherto been adopted in working-class neighbourhoods.

In the enlarged detail the houses are shown placed singly and in pairs on the plots, but in other sections it is suggested that groups of three, five, and seven might be permitted.

All roads, excepting the great boulevard and the central boulevard, are 50 feet wide.

The building site plan of the Connaught area is necessarily conceived on quite a different method to that on the Manchester area. The contours of the site and the exigencies of the

* See Appendix B.

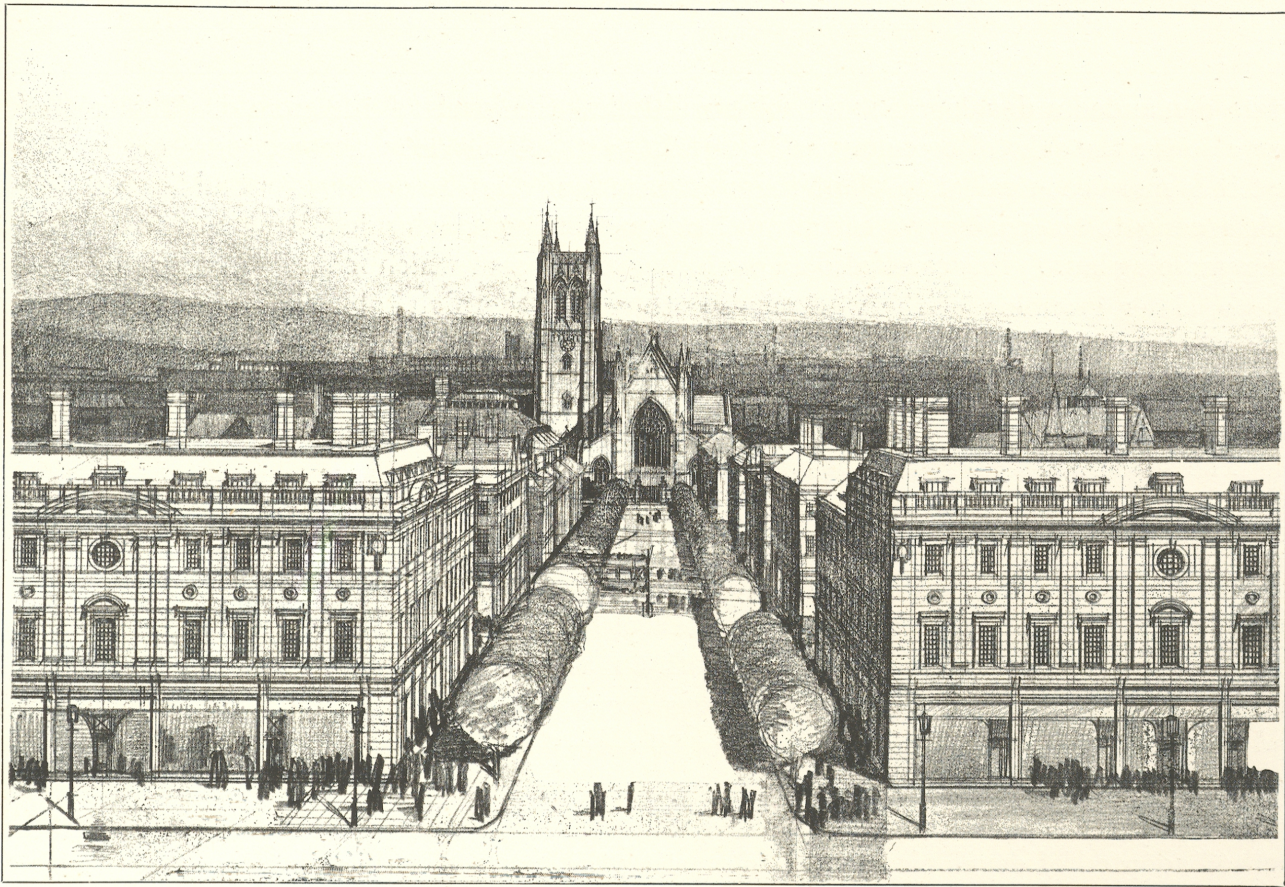


Fig. 31.—THIS ILLUSTRATION FROM OUR TOWN PLANNING SCHEME FOR BOLTON, IN ENGLAND, SHOWS HOW THE BUILDINGS ON EITHER SIDE OF A STREET SHOULD BE DESIGNED IN A QUIET AND UNIFORM MANNER SO AS TO LEAD THE EYE UP TO THE FINE BUILDING AT THE END.



Fig. 32.—SHOWING HOW CALGARY HAS ALREADY BEGUN TO CARRY OUT THE PRINCIPLES ILLUSTRATED ABOVE. HERE ARE THREE BLOCKS DESIGNED SO AS TO HAVE ONE SELF-CONTAINED FAÇADE.

estate demanded a development in which will follow the levels of the ground. This is necessary also for the sake of economy. On certain parts of this area the contours are so steep that it is more economical to plant them as park land than to develop for building purposes. This secures to the property a certain picturesque setting which adds greatly to the value of the remaining land. It secures also an open, hygienic aspect which makes possible and reasonable a closer grouping of the workmen's cottages on the high table land, and at the same time will add considerably to the value of the lower plots devoted to single residences. With these advantages architectural character should be easy to secure, especially as there are the church and school to provide the dominant note in the composition.

The school area is treated as a community centre with a public library and a workmen's club flanking it. Separate playgrounds are provided with beauty spots which might with advantage be maintained by the older boys of the school, under the direction of the City Gardener. The school house itself might also be arranged on such a plan as would admit of its being used as a lecture hall and technical school by the residents of the neighbourhood.

The total area of this site is 80 acres with a road area 24 acres, of which $10\frac{2}{3}$ is macadam, and $13\frac{1}{3}$ acres sidewalk. Allotment gardens occupy $5\frac{1}{2}$ acres, parks and gardens, $8\frac{1}{2}$ acres, and churches and schools, 4 acres, leaving 38 acres for building purposes, which is divided into 548 plots.

The success or failure of the housing of the working classes is dependent largely upon the method adopted of developing land and erecting the houses whether on tenancy or purchase, whether financed by private individuals or by associations, companies or co-operative ownership, or by municipal enterprise, or as a housing policy adopted by manufacturers for their own workpeople. All these methods have their advantages and disadvantages, but in each case it has been proved possible to give the workmen a distinct advantage by erecting whole blocks of houses at the same time rather than adopting the more expensive method of building detached houses one after another.

I am informed on the authority of Sir William Van Horne, that if a company like the C.P.R., were erecting houses in groups, it would be possible for them to build at 40 per cent. less than private owners.

In England, the great bulk of the building has been done by the private individual, who is responsible for most of the lowest grade work permitted under the building Acts ; although in exceptional cases, when a favourable site and ample finances favour him, undoubtedly he does the best work. Public companies have, during the last ten years, taken a responsible part in the housing of the working classes, often with most successful results, because the board of directors have been men of broad outlook genuinely interested in the welfare of the workmen, and anxious to give them such advantages as are possible without crippling reasonable profits.

Co-operative ownership for which Mr. Henry Vivian is largely responsible, has proved the most successful method introduced during recent years, as it secures the dual advantages of ownership and tenancy with good financial security for the debenture holders in the companies. This is a distinct advance upon either building companies and associations or private building, for while a company can usually operate more advantageously in the purchase of land, and in the letting of contracts, through its financially strong position, co-operative tenancy achieves the same result without imposing a permanent financial strain on the

tenants or destroying the mobility of labour. Roughly, co-operative housing companies are composed of a parent company which acts as mortgagee or debenture holder to a subsidiary company, making advances to the extent of two-thirds of the actual outlay. The subsidiary or building company acquires land, lays out the roads, and lets contracts for groups of houses of diversified character, but in which the details are standardized. It also raises the balance of the capital required, which balance is subscribed in the usual way by shareholders and the tenants, all of whom are holders of ordinary stock. As fifty dollars is the minimum qualifying holding for a tenant, the sum is not large enough to prevent there being always a full roll of applicants for houses. The rents are usually based on the sum

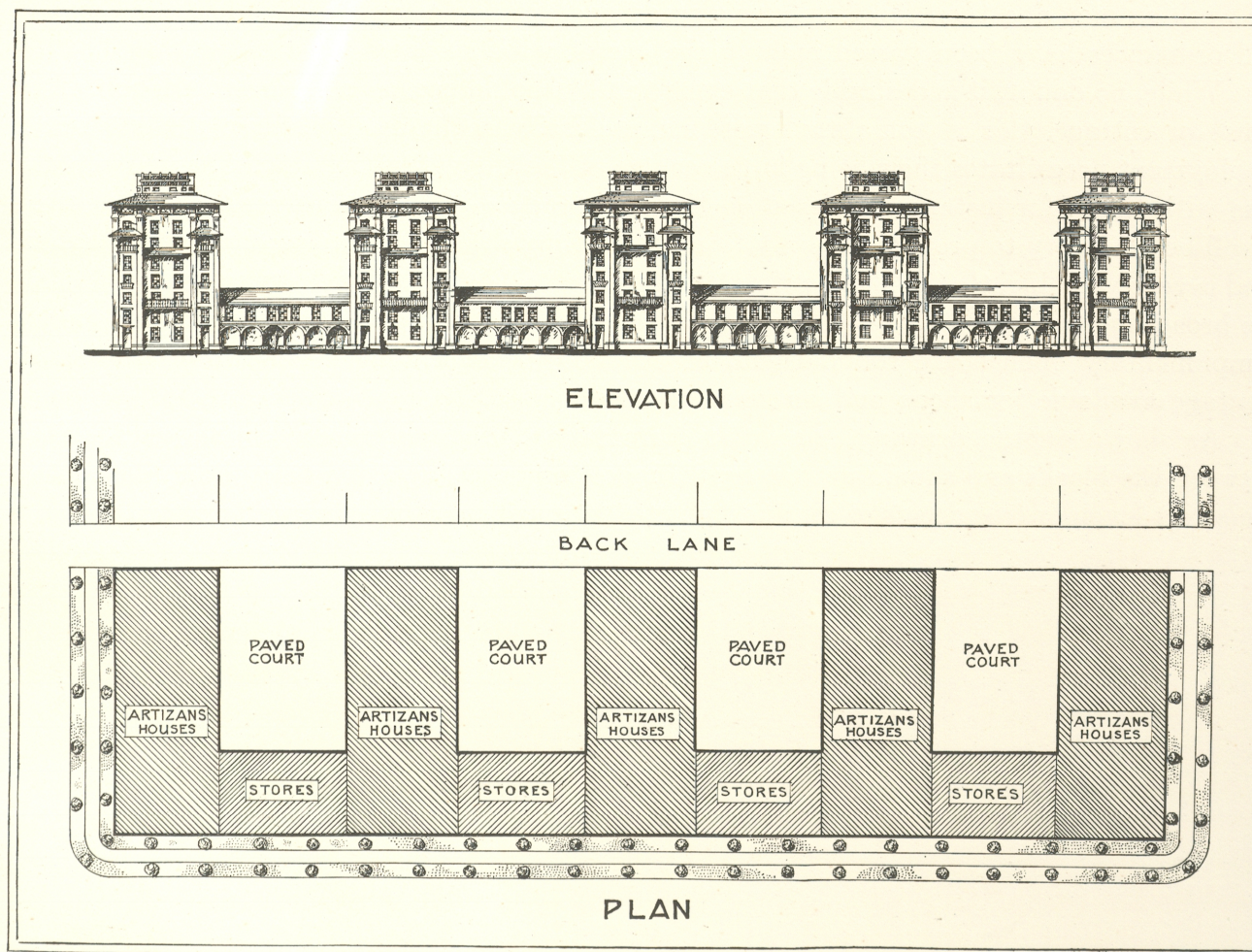


Fig. 33.—How ARTIZAN BLOCKS CAN BE BUILT SO AS TO BE AN ORNAMENT TO THE CITY,
AND YET WITH PLENTY OF AIR-SPACE ROUND THEM.

necessary to give a net return on the capital of 5 per cent. after paying maintenance and management charges. The advantage of this dual arrangement to the company as a whole is that the tenant has a stimulating sense of ownership, and usually sufficient stake in the property as a whole to secure its proper maintenance and its being fully occupied. The compulsory purchase of stock by tenants also provides a deposit ensuring against possible loss of rent, and experience has proved that the workman who is compelled to leave the

neighbourhood through loss of employment finds no difficulty in disposing of his stock, and so the mobility of labour is not interfered with in any way.

Housing policies adopted by manufacturers for their workpeople have undoubtedly worked well, both in the case of the English and German garden villages, while in the cases of Bournville, Port Sunlight, and Erswick, the principle of the tenancies is paternal and beneficent as well as approximating the co-partnership methods described above. It would, of course, be very easily possible for this system to become tyrannical and usurious if workmen are compelled to live in their employer's houses and buy everything they require from some central stores owned by him, as might be done where the Truck Acts were evaded.

The problems connected with the creation of large apartment houses and blocks of flats for working men and their families have already engaged the attention of your City Council, and ordinances have been passed making the use of wood in their construction illegal.

While, no doubt, it is desirable that every family should possess a separate, self-contained house or cottage, this is not always possible, especially in the case of those persons whose employment necessitates their being in the centre of the City at unusual hours, as may be the case with those, for instance, engaged on the maintenance of the public services. For these it will be necessary to provide the only form of dwelling which is economically possible where land is very valuable, that is, blocks of flats or tenements. In Fig. 33 we have roughly sketched the broad lines on which these blocks can be provided, so as to give the necessary amount of complimentary open space round them, at the same time leaving the whole of the street frontage available for shops and business premises.

As shown on the drawing, the latter form an architectural screen to the open spaces between the blocks and should not be carried more than one, or at the most two, floors above the street level, or free access of air and light to the courtyards will be interfered with.

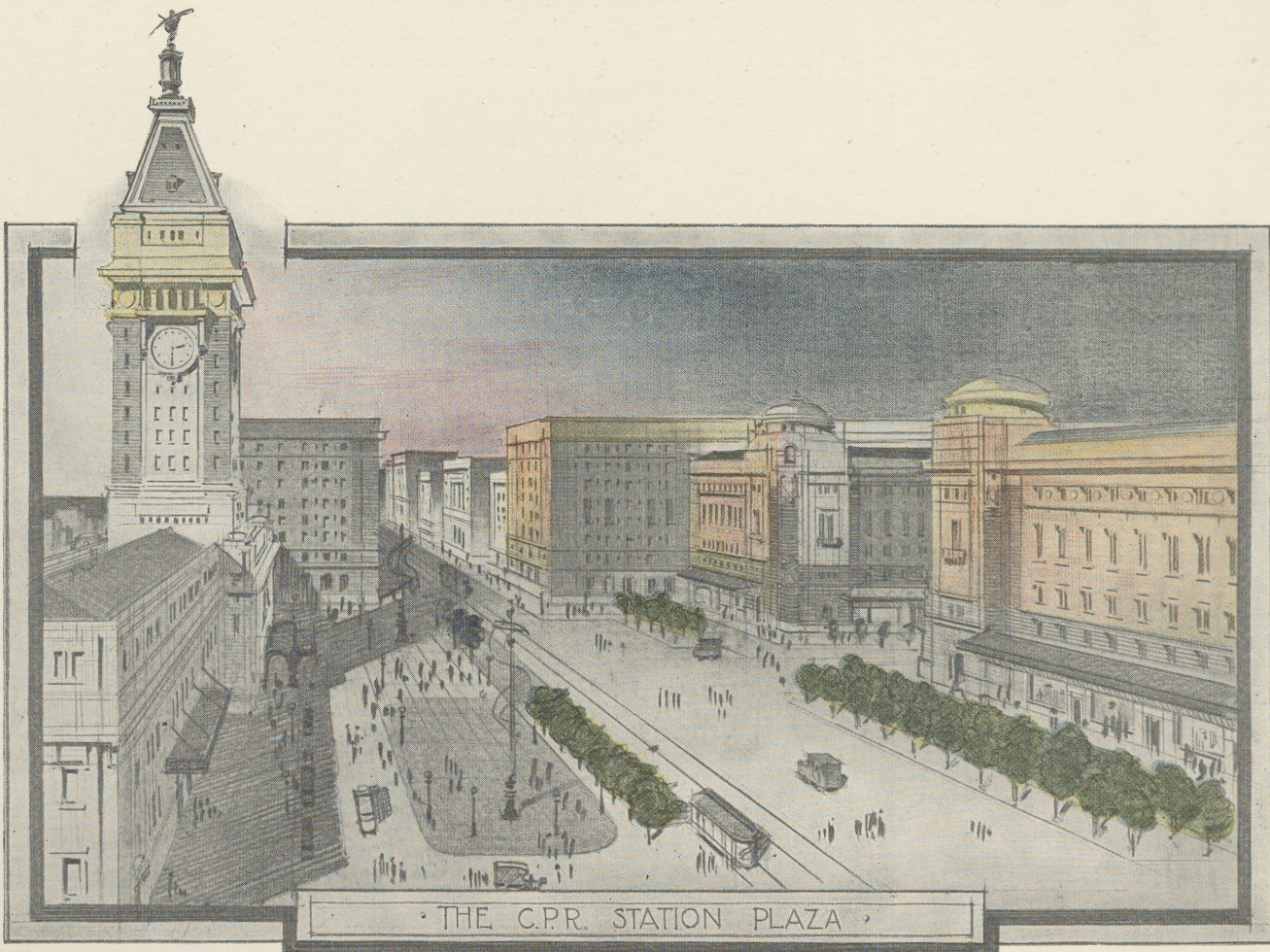


Fig. 34.

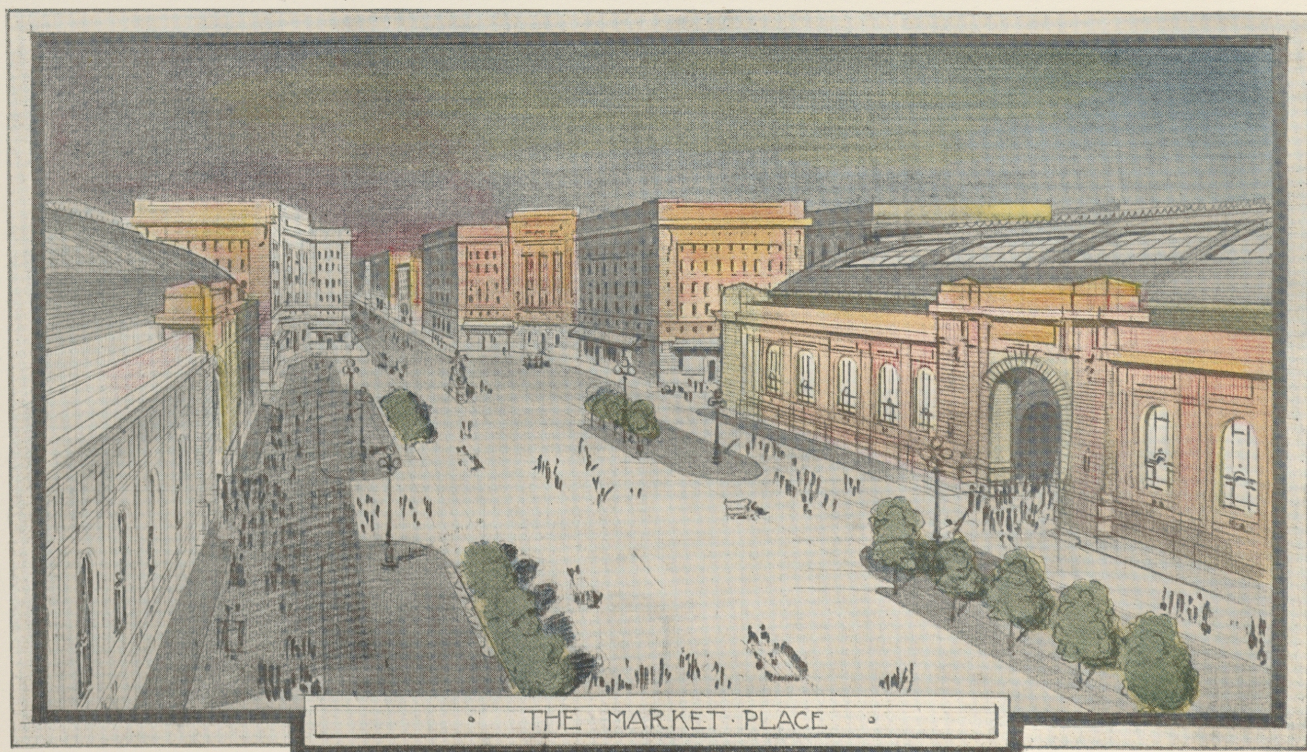


Fig. 35.

PART V.

TRADE AND COMMERCE.

IN the preceding portion of this report we dealt more particularly with the artistic and æsthetic sides of city planning, treating them, however, as practically as possible. In this section we turn to consider those aspects of our scheme which have a more directly commercial value, which can be more easily reduced to a question of dollars and cents. I think I said enough in my various lectures in Calgary, and in my interviews with the representatives of your newspapers, to dispel the idea that city planning deals only with civic art, and has no direct bearing on the life and daily occupations of the people. Of course, even those portions which tend only to produce the *beautiful* as opposed to the *useful*, have an indirect cash value, not only because beauty makes for happiness and happiness makes for health, but also because anything you can do for the beautification of your city enhances the value of the land on which it stands, and makes it a more desirable place to come and live at.

The centre round which all the commercial interests in city planning revolve is undoubtedly the placing of the railways and their termini. With regard to the manner in which the railways approach Calgary, we have, of course, nothing to do in this scheme, as they are fixed and unalterable, but we cannot help expressing great regret that you have not compelled the two new railways to bring their line at such a level as to avoid the necessity for any subways; and, as we have explained elsewhere, there can be no doubt that considerable alterations in the levels of the tracks will have to be made some day, probably at twice the expense which would be necessary had it been done in the first case. With regard to the routes taken by the various railways in approaching your city, we may perhaps remark that they fall in very well with our scheme for the grouping of the factories to the south-east of the central area. It has been suggested to us that it would have been better had they all converged on a point just outside the city limits, and had come forward on parallel tracks over the same bridges and embankments, and through the same cuttings within the city boundaries, but to do this would have limited very seriously the amount of land available for both factories and warehouses requiring spur-tracks, and the necessity for removing from time to time many of the older established businesses in the centre of the city to more economically placed sites, will cause the available ground for this purpose to be taken up even more rapidly than the expansion of the city would seem to indicate. Our recommendations under this head will be found clearly indicated on Fig. 36.

While, as we have said, the railways themselves are more or less fixed and unalterable, we think that there is a good deal which may be done to improve the three large stations which exist or are being constructed at the present time within the city limits. First of all, however, we would point out that, while there is no doubt that the ideal arrangement would have been a central depôt into which all the railways entering Calgary, now or in the future, would run their trains, we realise that, at the present moment, this is somewhat outside the range of practical politics and our suggestions therefore assume that the broad lines of the present arrangements are fixed and unalterable. At the same time, we think we ought to point out that within a very few years the conditions of travel in Canada must completely alter, as the

number of short journeys will greatly increase, and through journeys from a point on one railway system to a point on that of an entirely different one will become of every day and hourly occurrence, so that, some day you may be compelled to re-consider your decision on this point and provide a central station so that passengers and their baggage can be transferred from one local train to another in a few minutes without expense or confusion.

Taking things as we find them, however, we turn naturally first of all to ask : In what way can the C.P.R. dépôt be improved ? In considering this question, we have to bear in mind, amongst other small details involved, three very important facts. These are :—

Firstly, that the Canadian Pacific Railway officials have already decided that their terminal accommodation is too small, and must be enlarged at once.

Secondly, that they propose to double-track the whole of their trans-continental line.

Thirdly, the shopping centre shows a marked tendency to spread to the south side of the tracks, and has in fact done so to a considerable extent, notably on Second Street East and Fourth Street West.

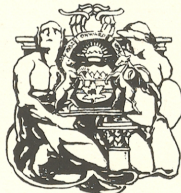
These three considerations, coupled with the fact that many of your best residential districts are to the south of the tracks, and also the Canadian Northern Railway are building their dépôt so that the C.P.R. station will be approached from the same direction, prove most concisely, that the proper way to extend the latter is by converting it into a double-sided station with bridges over the line, as is universally the case in Great Britain. The practical advantages of this course are obvious from what we have said, and the æsthetic gain will be enormous. We shall shortly endeavour to show that the only possible place for your wholesale and retail markets if they are to succeed, is as shown on Fig. 37, and this illustration clearly shows that the market, the Canadian Northern dépôt and the C.P.R., station will together make a very fine composition indeed. One advantage of converting the existing station into a double-sided one is that by this means we shall avoid building over the open space facing on Ninth Avenue, and so blocking out the handsome Natural Resources Building and the approaches to the new hotel. The latter building, as at present planned, faces on to a street far too narrow for it. In one of my speeches at Calgary, I referred to it as “ a building without a site,” and this really represents the state of things pretty well. Our proposals to form a new station-place on the south side of the tracks will, however, remedy this to some extent, for it will keep open the view of the main façade of this hotel, which is at present obtainable from this point and from nowhere else. Together with the bridges and buildings shown on our plans and other drawings, it will make a very fine composition indeed, and will give you a station worthy not only of your city but of the greatest railway corporation in the world.

With regard to the Canadian Northern dépôt, we sincerely hope that the work upon this will not have progressed too far by now to prevent the adoption in full of our proposals. As will be seen, we suggest that the station should be kept to the south side of the Elbow river, and should be approached by a bridge in line with Centre Street, so that you will have the architectural adornments of these two large stations facing one another at opposite ends of what will be a most important thoroughfare, thus giving not only very direct means of access from one to the other, but also an exceptionally fine architectural effect. We believe that the present proposal is to bring the railway across the Elbow river and have the station on its north bank, but we would point out that, in doing this, you are making the mistake which has caused

CITY OF CALGARY

PRELIMINARY TOWN PLANNING SCHEME

PLAN SHOWING EXISTING
AND PROPOSED NEW
FACTORY SITES



THOMAS H. MASON & SONS
EDMONTON, CANADA; VANCOUVER,
& NEW YORK.

Key to Diagram

EXISTING FACTORIES ———
NEW FACTORIES ———
FACTORY SITES ADJOINING C.P.R.
THE GRADUAL ELIMINATION OF WHICH
IS DESIRABLE ———

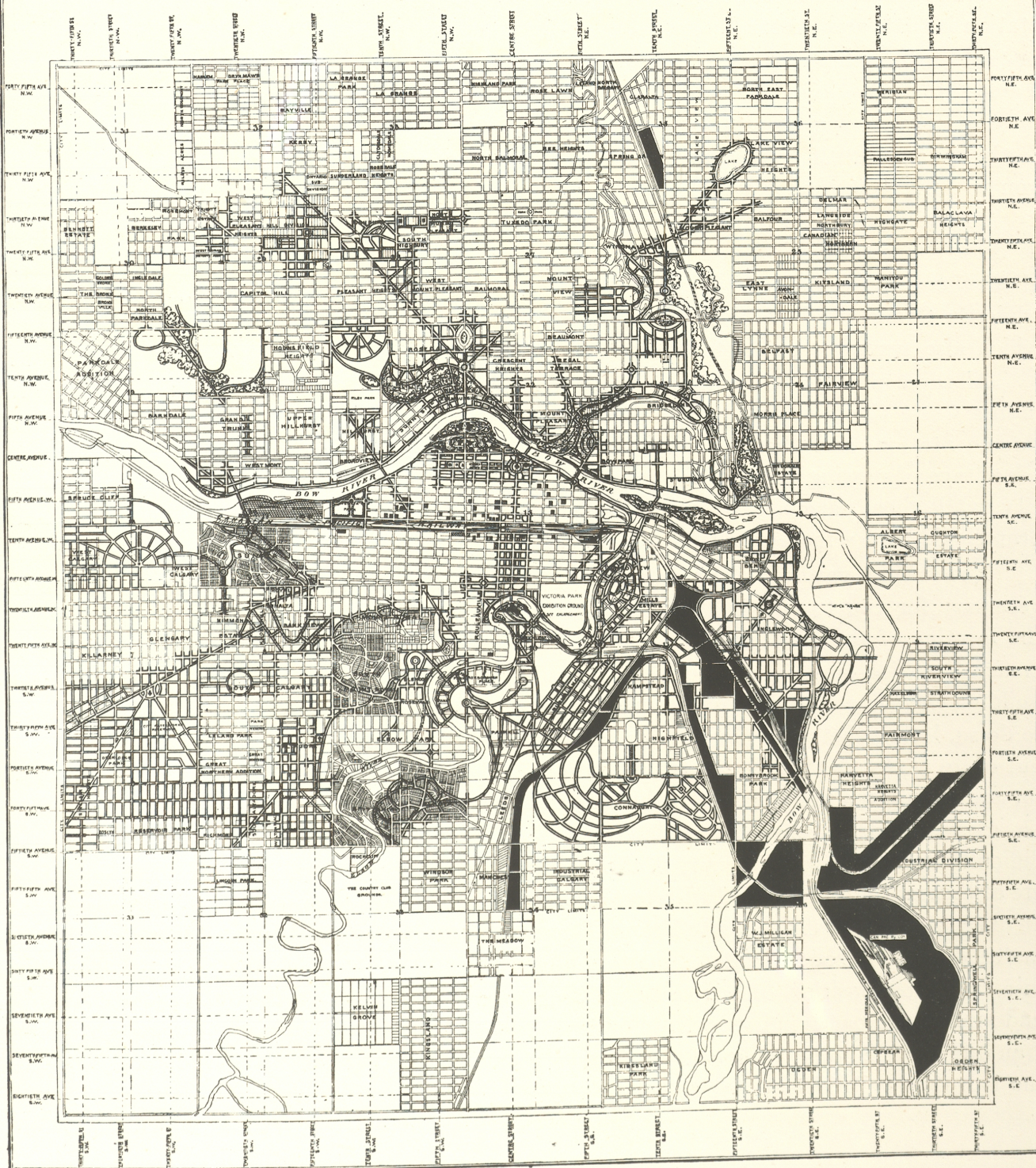


Fig. 36.

such great inconvenience and expense to the railways approaching London from the south. In the case of London, everyone is agreed that it would have been better both from the point of view of railway management and the saving of expense, and the prevention of acute traffic problems, if all three railway approaches to London had been kept south of the river, and the bridges which now carry the lines had served as the means of approach to the stations for vehicles and foot passengers. The conditions would appear to be much the same in your own case.

What we would most strongly impress upon you again, however, in connection with this station is that, architecturally speaking, it must face the end of Centre Street. To place it on one side or the other of the centre line of this important thoroughfare would be most disastrous. I am quite aware that it is a little difficult to realise what an important street this will become very shortly, having one station at one end of it and another at the other, but I feel perfectly certain that if you do not carry out my recommendations in this respect, before long you will find out that a great mistake has been made.

In the case of the third railway terminus, the traffic problems are not quite so simple as those connected with the other two, but nevertheless, there is nothing whatever elaborate about them. As will be seen from Fig. 37, Ninth Avenue connects the C.P.R., and the G.T.P., while the Canadian Northern is linked up with the latter by means of a new diagonal roadway, which also serves to connect all the railway facilities with Victoria Park.

All three railway stations are provided with good and rapid connection with the auditorium in the Civic Centre. We have already mentioned this in connection with the Canadian Pacific Station, and the Canadian Northern will use the same route with the additional advantage of passing through the market area and what will be a very busy portion of your city, while those persons arriving by the Grand Trunk Pacific Railway will use the riverside promenade, and a more beautiful and suitable means of access could hardly be imagined.

The freight yards of your city will shortly become totally inadequate, and it will be necessary for you to obtain the co-operation of the railway companies to make sure that the location of the new ones which will be necessary, does nothing to intensify the already great congestion on the streets of your central area. When the great railway companies were building their lines running into London, many years ago, they would, had they been allowed to do so, have penetrated right to the heart of the city, and there created great freight yards, but quite wisely as it turned out, the authorities foresaw the congestion that this would lead to, and arranged a definite area within which they were not allowed to come.*

Something of the same sort will have to be done at Calgary, especially in view of the great difficulty there is in widening any of the existing thoroughfares, such as Eighth Avenue, which are at present more than filled with traffic. Action in this direction may of course be necessary at once, but we would suggest that nothing which can be postponed for a while should be undertaken until you have had time to see how the factory areas develop, when you will be in a far better position to advise or collaborate with the railway companies in the placing and arrangement of freight yards. For a yard to act as what is known in the Old Country as "an interchange point," you could not do better than the east bank of the Bow river between the two railway bridges opposite Bonnybrook Park, as there the three great lines converge.

* Report of the Royal Commission on the means of Locomotion and Transport in London, Vol. I.—Sect. 34 *et seq.*

It is clear that the question of railway accommodation and factory sites are very inter-dependent, almost as much so as the relation of the factories themselves to the homes of the workers and the means of getting from their work to their homes, which again brings in such questions as car routes and suburban stations, which have already been incidentally mentioned elsewhere, and need only be referred to again here.

There is one class of factory, however, which needs special mention, and that is the kind housing what is known as an "Obnoxious Trade." Such trades may be divided into two classes, namely, those which make an objectionable noise and those which involve an evil smell, and each will require somewhat different treatment. They are both necessary to the community, and therefore cannot be shut out of your city altogether, but powers should be obtained at once to enable you to determine where they should be placed, and under what conditions the businesses shall be carried on. Speaking on this very subject in Calgary in September, 1912, Mr. Henry Vivian, M.P., dealt at length with this very subject, and I think I cannot do better than enforce my remarks under this heading by a quotation from his speech. He said :—

"And now I would make an appeal for the support of this security of property. I know it is sometimes said that Town Planners are people who want to ride rough-shod over the interests of others regardless of the private rights of the individual, and that their plans would be in a direction of injuring property. I want, Mr. Mayor, to enter a very strong protest against that view. Indeed, I ought to reverse the argument, and to say that on the whole, rational town planning, instead of being detrimental, will really serve to add security to property itself. A man lays out \$5,000.00 or \$10,000.00 on the cost of a house somewhere near Calgary or Edmonton, or anywhere else. Without order or properly laid out regulations, without some central control laying down the rules of the game, he has absolutely no security that a stencil factory would not be located within 100 feet, or a gin palace would not be located there, or a lodging house. A man may spend \$10,000.00 for a home, and at the end of five years his place is ruined because there is no order or general control. I say, therefore, that well-regulated town planning and city planning would, in the main, tend to secure property rather than to injure it."

Two other very important matters bearing upon the life of the community which it is necessary to refer to, and which have much in common, are the arrangement of the shopping centres and the market. With regard to the first of these I believe I pointed out several times when I was in Calgary that there was abundant evidence in the way the retail business premises had arranged themselves to prove that not only do you require a large central business centre, but also subsidiary ones at central points in the various suburbs of your city, principally for the provision of small household necessities. I pointed out that, while your main business centre at present occupies Eighth Avenue and the surrounding streets and avenues, subsidiary ones were growing up at such strategic points as the north side of each of the bridges across the Bow, with the exception of Centre Street, and at other points, such as street car transfer stations, and so on. Fig. 37 shows how we have developed this idea, first by indicating the direction in which we feel sure the development of the main shopping centre should be encouraged, and, secondly, the location of subsidiary centres where they should be erected from time to time as the development of each district demands.

We need hardly point out that a great deal may be done to make the various suburbs

of your city attractive places to live in by designing these shopping centres with some regard to collective effect. I have in mind such a small centre in one of the garden suburbs of England, where all the shops have been arranged round an open square with colonnades over the sidewalk all round, and archways over the roads leading into the square. Its centre is filled with bright-hued flowers and flowering shrubs with enough evergreen material to prevent bareness in the winter, and the arcade and flowering plants, and the design of the shops, together with one or two small fountains, gives a delightfully cloistered effect, and the result is very striking indeed. I do not wish you to infer that I consider that exactly this sort of development is suitable for every suburb of Calgary. The conditions are altogether dissimilar, and must differ in each suburb, but the main idea will apply, and by a little care in the arrangement of your details and particularly in trying to get some sort of a collective effect, especially in the design and alignment of the sign boards over your shops, you can do a great deal to make your suburb look high-class and interesting, and encourage a good class of shopkeeper and a good deal of local trade.

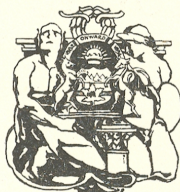
Our proposals with regard to the main shopping centre have been very largely influenced by three main considerations. Firstly, the relative positions of the C.P.R. Station and the Canadian Northern Station ; secondly, the placing of the new Market Halls, wholesale and retail, and, thirdly, the design and functions of Victoria Park. The chief of these three, of course, is the placing of the markets, which, as you will see from the plan (Fig. 37), and also from the perspective view (Fig. 35), are grouped on either side of Centre Street. We are aware of course that you have an existing market on Fourth Street East, but we venture to suggest that, had the designers of this market studied its functions and placing in relation to the city plan as a whole, it would have been differently placed, differently designed, and differently operated. It is one of the first rules of town planning that a market, covered or open, wholesale or retail, must be absolutely central, or it is no good whatever. People will not go out of their way to get to it, and the retail dealer usually has sufficient business insight to see this and to compete successfully with the public market by placing his business where the market ought to be, and so getting all the custom. At the same time he has nothing to fear from the competition of the market. Such an institution always attracts great crowds, and that it does him good and not harm is obvious from the fact that rents are always high round a good market hall in England. As we believe we pointed out to you at Calgary, there are other factors which will prevent this market hall from being successful where it is at present, and designed as it is, and we would therefore suggest that you seriously consider whether it cannot be conveniently converted into a swimming bath or gymnasium, and new halls, much larger and better equipped, be built in the most central position possible, that is, where we have shown them on our plan (Fig. 37). The present structure is just about large enough to house the tank and landings of a good-sized swimming bath. The dressing boxes, administrative offices, and private baths could be provided on the vacant land surrounding it.

It may be thought that the position which we have chosen for the new market is not really as central as one would be north of the tracks. This is certainly so at present, but we are not planning for the present but for the future, when the coming of the new railways into Calgary has made itself felt, and the area between Seventh Avenue and the new Auditorium has received its whole tone from the placing of that and other important buildings round the new Mall. To place the market anywhere in this area would be to spoil it and

CITY OF CALGARY

PRELIMINARY TOWN PLANNING SCHEME

PLAN SHOWING ENLARGED AND
NEW SHOPPING CENTRES



THOMAS H. MANNING & SONS
INCORPORATED VANCOUVER,
B.C. & NEW YORK, N.Y.

Key to Diagram
ENLARGED SHOPPING CENTRES -----
NEW SHOPPING CENTRES -----

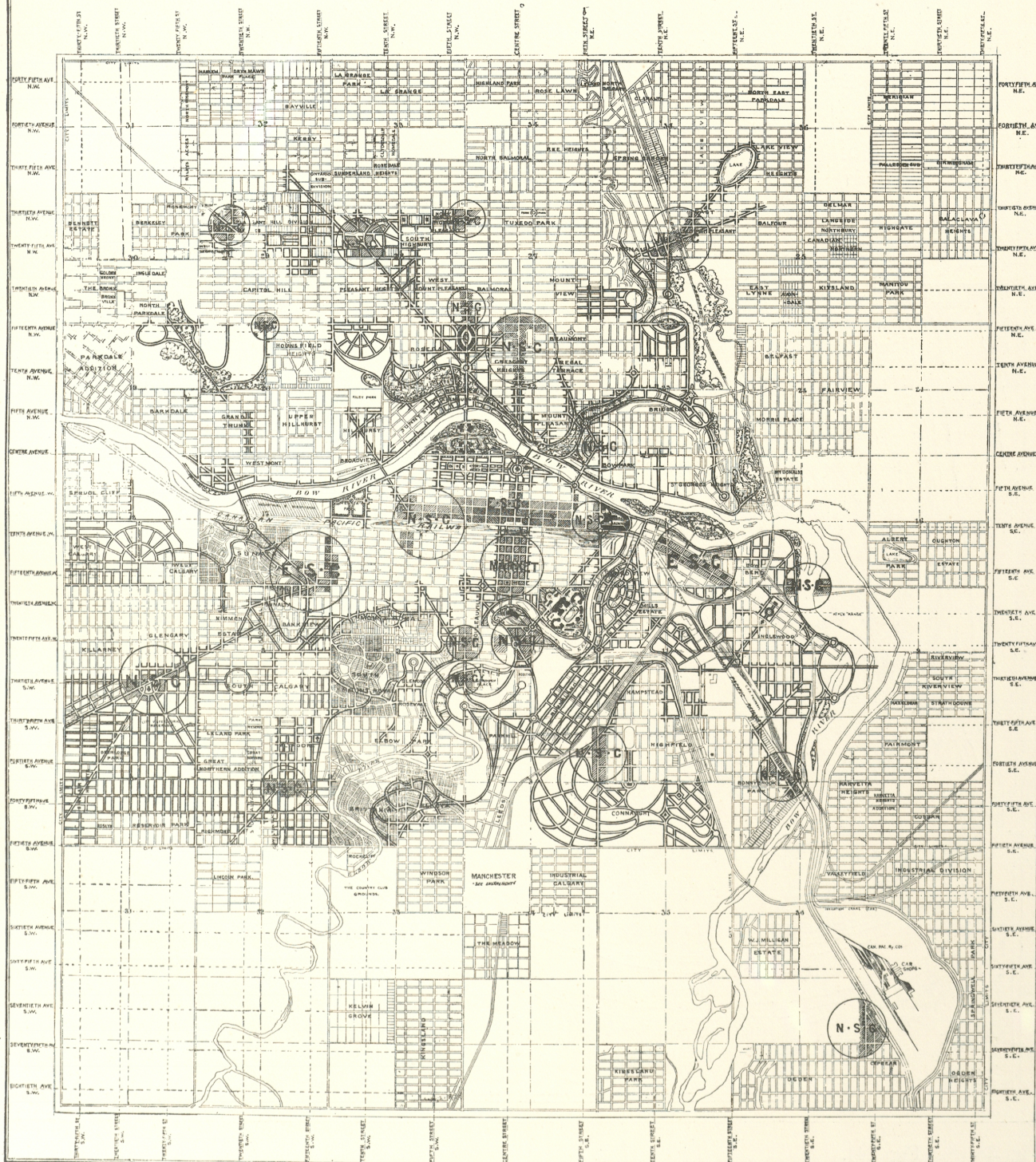


Fig. 37.

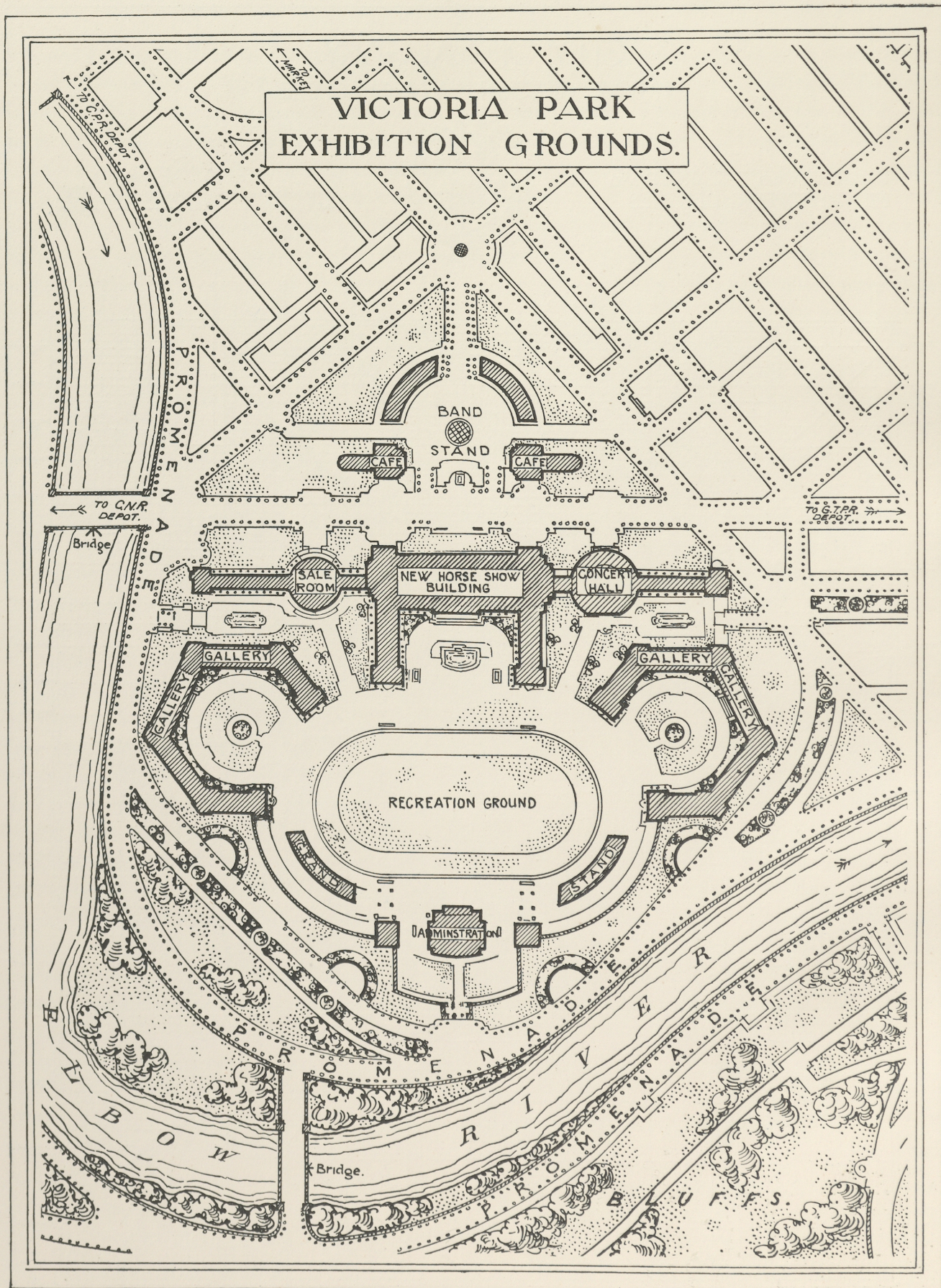


Fig. 38 (See Fig. 24).

to lower its value for the purposes for which it is best fitted, while, as we have pointed out before, to place it where we propose is to make it accessible from the railways and central in every way. There is a saying that "Nothing succeeds like success," and this applies more to markets than perhaps any other feature. Even your present market would probably have attained to more success had it been four or six times the size, so as to create a little shopping centre of its own, and in the town in which I am writing this, Lancaster, and where the population is only about two-thirds that of Calgary, we have a market hall at least seven or eight times as big as the one you have, and a most flourishing institution it is, with every bit of the available space occupied on market days, and the greater part busy all through the week. From this it is to be inferred that you should either build no market halls at all, or you should build them of sufficient size and properly equipped. Fig. 35 will give you some idea of our proposals under this head, though, of course, we have made no attempt to deal with the subject in detail. In fact, it is highly probable that the conditions of climate in Calgary may make quite a different form of roofing to that shown necessary. Such details, however, can easily be settled at a later date. What we want to draw your attention to here is the general arrangement and scale of the buildings. One of the two is intended as a wholesale market and the other as a retail. It does not really matter much which is chosen for each purpose unless the existing spur-track, which approaches the one to the right hand in the illustration, is continued so as to supply it, when it would undoubtedly be better to dedicate it to the wholesale trade. We think, however, that subways will some day be constructed connecting up the wholesale market with both the Canadian Pacific and the Canadian Northern Railway termini, though the spur-track we have just referred to may be adopted as a temporary expedient.

As will be seen from the drawing, between the two markets, there is a broad open space. This is intended for the open air market which always accompanies a successful produce market. The four island pitches shown, which would be brilliantly illuminated with cluster lights at night, are intended to accommodate the carts or stalls whereon the small-holders from the districts surrounding Calgary would display their poultry and dairy produce or market-garden stuff, paying, of course, a small market toll for the privilege of doing this, and thus, while the open space will be very valuable, purely as an open space, on market days it will be a source of revenue as well as a great attraction to the economical housewife.

Before leaving the subject of markets, we may perhaps point out that one mistake which was being made with regard to your existing market house at Calgary, and which we believe has to some extent been remedied since we left, was the strict exclusion from the market of all those small fancy dealers who do so much to attract a crowd. While your market is built for a serious purpose, and for serious work, you cannot afford to neglect this side of its use, for while the fancy dealer in cheap articles may seem rather a nuisance from most points of view, he undoubtedly attracts purchasers, and, as we said before, in market construction and operation "Nothing succeeds like success."

You will see from our general plan, and also from the detail plan given in Fig. 38, that we have entirely remodelled the exhibition ground at Victoria Park. As the ground is at present, we feel that it is just the one thing in Calgary more than another that shows the want of a little forethought and arrangement in its design. You have erected a number of expensive buildings, which, had they been grouped with an eye to collective effect, could

easily have been provided with plaster fronts, which, together with a little landscape gardening, would have given them a very fine effect indeed as exhibition buildings go, but, unfortunately, they have been put down on the ground without much idea as to their relationship one to the other, and the necessary stables and so on have not been kept in the background.

The accompanying plan shows how we propose to remedy this, and to make far more of the ground than is at present possible both from the practical and artistic sides. Our proposals introduce a new feature into the planning. North-west of the new diagonal road between the Canadian Northern Railway and the Grand Trunk Pacific Railway Stations is a more or less detached portion on which has been placed the bandstand and cafés, and space for both open and covered seats for open-air tea, and this part has been kept separate from the rest, with the idea that a band will play there probably two or three times a week and the cafés will be open daily, and so it will be required to be in use on many occasions when the main exhibition grounds are closed. On the other hand, when the latter are open, this part will of course also be used as a portion of the whole scheme. With regard to the other part of the ground, you will notice that the very most has been made of the frontage on the river, and that all the existing facilities have been duplicated in addition to the provision of fresh ones. Reference to Figs. 24 and 38 will at once show how the various buildings, including the exhibition galleries, the new Horse Show buildings, and the space for shows, are arranged, while the recreation ground could be approached direct from the riverside promenade if this were thought desirable at such times as the other buildings are not in use. The Horse Show building is made the centre of the largest block of all, and it is perhaps necessary to add that it is intended that the sale room and concert hall should be at a higher level than the show ring of the Horse Show building, so that the hitching rooms may be under the sale room and the concert hall. This would enable the back of the tiers of seats in the Horse Show buildings to be approached from the same level as the sale room and concert hall, while the front of the seats would be accessible from the lower level, that is, the level of the hitching room, etc. Beyond these rooms on either side are the stables, with exhibition galleries above. It will, of course, be necessary to have solid floors between these buildings to prevent any stable odour from penetrating to the exhibition rooms.

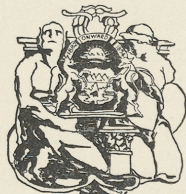
Such details as flower beds, plantations, fountains, and water-lily ponds are shown on the plan to indicate the general lines on which these may be constructed, but details will have to be left until more careful consideration has been given to your requirements than is possible in a preliminary scheme like this. An exhibition swimming tank is another feature which is not shown, and which will have to be provided on the recreation ground. As will be seen, the question of access has received careful consideration. Reference to the plans will show immediately how teams and animals will approach the stables and the sale room, the latter by an inclined plane of course. The Horse Show building has two main entrances for the public, arranged in a central position not far from the bandstand and café, while the grounds will be approached in a direction convenient to the two nearest railway stations. It may be thought that we should have shown a large number of entrances from the riverside promenade. These could, of course, be easily added to our plan, but we have not shown them on account of the greatly increased difficulty of effective control and policing which they would involve.

There remains one other point to consider before closing this portion of the report in which we deal with the financial side of city planning. This is the provision of cheap land within an economic distance of Calgary, so that the inhabitants of your city may obtain the necessities of life at a reasonable cost. We refer, of course, more particularly to dairy and market-garden produce, which we understand is, at the present time, largely imported from a considerable distance. The encouragement of local industries of this kind is an absolute necessity if each and every one of the factors discussed in this portion of the report are to be wholly successful. The railways and the markets, and the tradespeople of Calgary will all suffer unless you can create a fairly densely distributed rural population round your city engaged in the cultivation of the various kinds of small-holdings which obtain in other countries, and until you do this, money, which ought to be circulating between the tradespeople of Calgary and the cultivators of the soil all round, will continue to be sent away from the district altogether, which, of course, is a great mistake. The matters which we shall discuss in the next portion of this report have an important bearing on this subject, and we shall have occasion to refer to it again.

CITY OF CALGARY

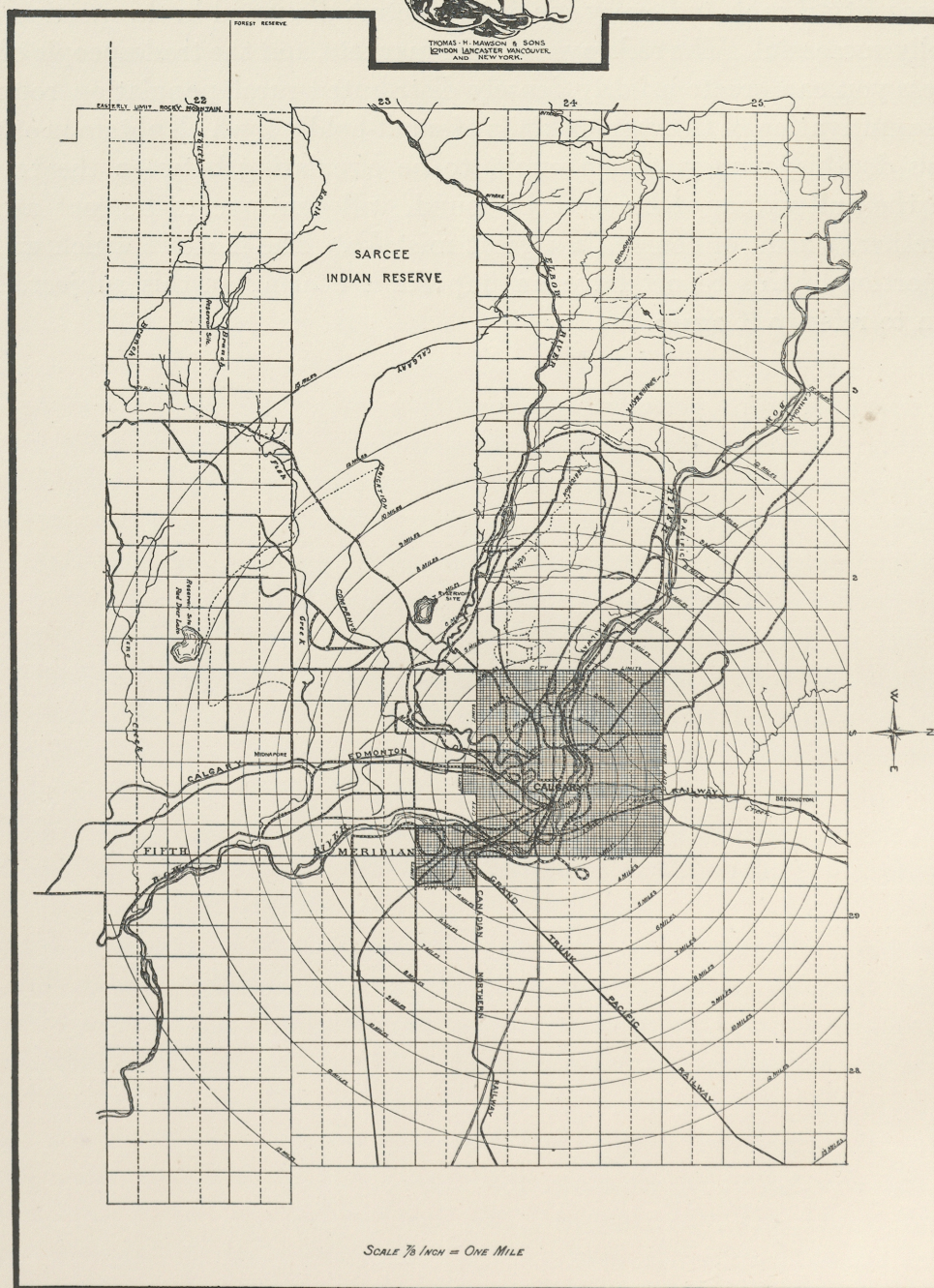
PRELIMINARY TOWN PLANNING SCHEME

Key to Diagram
 PROPOSED AUTOMOBILE ROADS —————
 RAILWAYS - - - - -



THOMAS H. HAWSON & SONS
 EDINBURGH, LONDON, NEWCASTLE,
 AND NEW YORK.

Key to Diagram
 CITY BOUNDARIES —————
 INDIAN RESERVE BOUNDARIES - - - - -



SUGGESTED SCHEME FOR AUTOMOBILE ROADS
 BETWEEN
 CALGARY AND SURROUNDING BEAUTY SPOTS

Fig. 39.

PART VI.

THE ENVIRONS.

IT might seem at first sight as though a city planning scheme for Calgary should go no further than the limits of the City itself, but this would be a very short-sighted policy. In the commercial world no city can live to itself. It must not only receive from other places manufactured articles which it cannot produce, but must also send out to others the products of its own manufactures, and just in the same way, in our scheme for Calgary, we have to consider those directions in which our proposals can influence the city's welfare from outside sources.

Of course, our scheme as a whole should do this, and particularly by means of the features discussed in Part V., but there is another way particularly applicable to your own city in which our proposals may make for your social and financial gain. This is by attracting to Calgary that rapidly increasing number of persons who visit places of interest by automobile, and who, as soon as the necessary roadways are made, will come to the Rocky Mountains in very large numbers from the States. From the point of view of the tradesman, there could be no more desirable class to attract to your city, and seeing that, given good automobile trails where high speeds could be obtained, you are only a few hours' run from the nearest point of the Rockies, we should be neglecting a very important part of our work if we did not include in our scheme proposals for the formation of such roads surrounding Calgary which will not only draw to your city all those who visit the Rocky Mountains by automobile, but also open up to those residing in Calgary all the many beauty spots and lovely views which exist in your locality, and which, when they were shown to me by the President of your City Planning Commission, William Pearce, Esq., D.L.S., came as a perfect revelation to me, accustomed as I was to imagine your City to be set down on a featureless prairie. No greater mistake could possibly have been made. Your City, standing as it does on the rolling foothills of the Rockies, has on every side of it beautiful valleys well supplied with streams of water and trees for foliage, and rising ground from which the most magnificent prospects can be viewed, often with the snow-capped Rocky Mountains to form the background, and always gaining added beauty through the enormous distances which it is possible to see on account of your wonderfully clear air and brilliant sunshine.

How these various roads should be constructed is clearly shown on Fig. 39, for the rough draft of which I am entirely indebted to the President of your Commission, who has placed at my disposal his unique and extremely extensive and varied knowledge of the district, and without whose help such a workable and extensive plan would have been impossible in the time at my disposal. Of course, the first and most obvious thing to do in this direction is to reserve a strip of ground along the tops of all the bluffs round the city (see Figs. 5, 6, and 41), on which to form an outlook promenade suitable for use, not only by automobiles, but also by rigs and foot passengers, and wherever possible, to broaden out this promenade into a park. The main routes that this should follow are roughly indicated on our general plan, Figs. 1 and 14, as well as on the small scale plan, Fig. 39, showing the more extensive proposals in this direction. This would give you a promenade practically all round your city, from every point of which magnificent views would be obtainable, and which would form the

starting point for more extensive automobile runs in all directions, and especially towards the National Park. Sufficient building along the tops of the bluffs has not yet been done to prevent your arranging this, for, even where land has been sub-divided right up to their edge, it should surely be possible to persuade the owners to remove their roadway from the back of the plot to the front, and to sell at a very reasonable valuation the ground necessary to widen it, so as to obtain a promenade of ample proportion, for they would gain a great deal more than they lost by this arrangement even if they presented the land to you for the purpose free of all cost. Failing this, recourse must be had to the provisions of your Town Planning Act.

To anyone who knows Calgary, and its environs, the roads shown on illustration No. 39 will explain themselves, and to those others who do not I can only say that they are carried through country which is almost continuously beautiful, and which contains many areas of swamp land by the sides of the rivers and elsewhere, which, though unsuitable for building upon, or even for the ordinary purposes of agriculture, could not possibly be improved upon for preservation as open spaces and natural parks. Being well watered, timber thrives wonderfully well (Figs. 2 and 40), and even at the present time, before anything has been done to encourage vegetation, they abound in native trees, shrubs, and flowers, and no doubt could be made very beautiful by a little judicious planting.

As to ways and means, I think I cannot do better than by quoting *verbatim* from the "Calgary Herald" of April 11th, 1913, where an article, of which the following is part, appeared, and which points the way to the fulfilment of our proposals, which is eminently practical.

It said :—

"In Western Canada the rural highways are poor, probably the poorest that prevail in any country which has reached so high a state of civilization.

"As compared with the east, the west has a distinct advantage in having 54 miles of regularly surveyed roads in each township, 36 miles north and south, and 18 miles running east and west.

" * * * * * In the west the township is the basis of the rural municipality which controls the roads. Every holder of a quarter section is liable to a tax not exceeding \$8 per quarter for the maintenance of good roads within the municipality. The main roads are looked after by the Provincial Government, which also bears the expense of bridges and ferries. All that the settler has to look to is the proper upkeep of the roads within his own municipality.

"As roads are as much for the convenience of all the inhabitants of a country, it would be manifestly unfair that the residents along the roads should bear all the expenses. This principle has been recognised in every civilized community, and the expense of the maintenance of the roads has been divided in varying proportions between local, municipal, and provincial authorities.

"After much engineering, perhaps, the State of New York has found out the fairest and most satisfactory division of responsibility, divided as follows :—Federal, 50 per cent. ; State, 35 per cent. ; and Local, 15 per cent. Following on these lines, we would have in Canada :—Dominion, 50 per cent., covering the great ocean to ocean highways and trunk roads to the north ; Provincial, 35 per cent., the

maintained travelled roads within the province ; and 15 per cent. for the local roads within the municipality. If the Local, Provincial, and Dominion authorities work together, there is already a foundation for the finest system of roads to be worked out in the west, that will easily lead to the best roads on the continent, and that end may be achieved without working any hardship to the poorest homesteader or increasing general taxation by the fraction of a mill.

“ If the township road taxes are made the basis of contribution from the Provincial and Dominion Governments, the matter is already settled, and good roads will keep on growing and maintaining themselves as the country keeps getting settled and in exact proportion to the degree of settlement.

“ The revenue available in a township fully occupied would be 144 quarters, at \$8 each, equals \$1,152. If this is taken as 15 per cent. of the total amount to be expended, and allowing the same proportion for Provincial and Dominion Government Grant, there is a total of \$7,680 per annum available for every fully occupied township. At the present time, as fully occupied land is very rare, if only 50 per cent. is occupied, still over \$3,000 would be expended in the township on roads annually.

“ As to the question whether the tax should be worked out or paid in cash, it depends wholly on local circumstances. If the occupants of the township co-operate and buy some of the most needed machines, such as a split-log drag, or grader, and some (as circumstances dictated) paid their tax in kind, and others in cash, a municipality might be able to do some economical and advantageous work, also in co-operating with Provincial and Dominion authorities in building new thoroughfares in their own neighbourhoods.

“ Co-operative action between the local authorities and actual occupants on the one hand, and between Local, Provincial, and Dominion authorities on the other, and a well-considered policy of good roads, rigidly adhered to and constantly carried out all over the country, will save hundreds of thousands of dollars in Alberta alone, and do more than any other single conceivable thing to place the farmer on the national high road to prosperity.”

The last sentence in the above quotation brings to mind a further advantage of our proposals. These automobile roads would not only be used by those travelling for pleasure, but would also give to the farmer on the outskirts of Calgary that opportunity for marketing his produce in the city itself, which he at present lacks, and to which we have referred elsewhere when dealing with the subject of the new market halls. Those who know the old country, and who realize what a part the great network of roads which covers it in every direction plays in its life will have no hesitation in agreeing with us that, until some such system of roadways as is herein indicated is undertaken for Calgary, your city must be handicapped in very many directions. On the other hand, if you are first in the field with such a system you may hope to reap a benefit which your competitors in other parts of the great North West will not obtain until they are wise enough to follow your example.



Fig. 40.—ONE OF CALGARY'S BEAUTY SPOTS WE PROPOSE TO PRESERVE.



Fig. 41.—A SMALL DAM AND A FEED-PIPE FROM THE RIVER WOULD MAKE THIS INTO AN IDEAL PADDLING LAKE FOR THE CHILDREN, WITHOUT DESTROYING ITS BEAUTY.

PART VII.

FINANCIAL AND LEGAL.

THOUGH from time to time in the earlier portions of this report I have touched repeatedly on the financial and legal aspects of my scheme, these did not form a part of your instructions, nor can I claim any local knowledge which would apply in particular to Calgary. All I have said, and all I can say, in this concluding article is by way of a summary of the general results of my training and observation of the general trend of legislation for social ends and of finance as applied to town and city planning in general. It would, of course, be absurd to lay before you a scheme in which the financial possibilities had not been carefully gone into, and in which I had not considered how far your present legal powers would help you in its execution as well as what further legislative enactments are possible and necessary to enable it to be carried out.

If you bear in mind what I have so often pointed out, viz., that the scheme can only mature very gradually, all appearance of financial impracticability will disappear, and it at once becomes apparent that your best course will be to allocate from your public funds a given sum every year towards city extension, which will expand automatically with a growing rateable value, and to take in hand and carry out one portion after another as the increase in population in various districts and the call for public facilities and public buildings makes necessary. Even if you do this, the sum set apart will not be in any way an extra burden on your ratepayers, for it will only be used in providing those public facilities which it will be necessary to make provision for in any case, only instead of doing them in a haphazard way by fits and starts, and very often finding what you have done before clashes with what you propose to do in the future, you will be working out a comprehensive and sustained policy which will give you threefold value for your money. Of course, in allocating this sum of money to be paid yearly into the fund for city planning, you will have to take into consideration a financial forecast and determine what it is possible to do, and the rate of progress you propose to make should bear a proper relation to the prospective resources of your city. In any case, there is no need for undue haste. Paris has been working on Hausmann's plans for more than eighty years, and the city of Boston, U.S.A., has undertaken the development of a park system which it is intended to spread over a period of thirty years. Of course, most people live for the day and for the hour, and your greatest difficulty will be to make them see first of all that the whole cost of the city planning scheme is not to come out of one year's estimate, and so ruin you, and, secondly, that when you start upon a very large undertaking which will occupy all your resources for a number of years, because you do not complete it at once, you have therefore failed and made yourselves ridiculous. In fact, it will need that kind of enthusiastic imagination which is the root-spring of all great actions, and which is not only compatible with, but also the invariable accompaniment of a sound practical policy. You will have to point out that lack of plans leads to careless ill-considered, extravagant waste, and that a city plan ought to prevent waste. You will have to study the question so that you can prove to doubters that at least two-thirds of the features in our preliminary plans now submitted will have to be carried out very shortly in any case, and that not only the real estate market, but every other interest will gain by having the thing done the right way the first time.

Among those items just referred to as being necessary to provide at once, I would mention the new railway depôts, the enlarged and improved C.P.R., depôt, the armoury, churches, and many other semi-public institutions, all of which should fall logically and beautifully into their place on the city plan.

One way in which the adoption of a settled policy, such as this plan provides for, may result in a large financial gain, is by the purchase from time to time of sinking fund lots such as those acquired in the past by the school board, but, of course, for every purpose for which such lots may be required in your city development as shown by, or incidental to, the accompanying plan, and by this means excess claims against you for interference and dispossession will be avoided. There is also a provision in your Alberta Town Planning Act which will enable you to obtain financial assistance for your scheme by charging to adjoining owners half of any expense you may go to, which greatly benefits their property. Our past experience of matters of this kind would lead us to the conclusion that you will only be able to charge a certain proportion of this increased value, and this, while it might appear at first sight to be a drawback, is not really so. While you gain to a certain extent, the owner of the property will also gain by the difference between what you can charge and the total value of the increment, and this will tend to promote a feeling of hearty goodwill and co-operation between the authorities charged with the execution of the Act and those landowners with whom they come in contact.

We have already spoken elsewhere, and have illustrated in tabulated form in comparison with other cities, the manner in which Calgary is spread over, perhaps, four or five times the area which can be economically developed as a city. This we beg leave to say is a matter for serious consideration by the financial and legal advisers of your City Council, and we would suggest for their consideration whether it would not be possible to make some broad and comprehensive enactment which would prevent the intensification of this undesirable state of affairs, and lead to a more economic policy. Would it not be possible to arrange that no one is to build a dwelling-house within the city limits more than a certain distance from existing public services, such as sewerage, water supply, and made-up roads, or those which it is possible to make up before very long, unless he covenants and undertakes to be responsible for the supply of these services either by connecting up to the nearest branch at his own expense or by providing an efficient supply of his own? There is nothing impossible in this, for, as no doubt you are aware, in Great Britain every owner of property is called upon to show the local authorities that he possesses these facilities before he is allowed to inhabit his dwelling.

A further subject which is a fitting one for local legislation, is the regulation of gradients to which roads and streets may be made. At the present time there would seem to be nothing to prevent a man if so disposed making a roadway straight up the bluffs, and, in fact we have in mind at least one instance where a road is so steep that the greater part of the sidewalk is in steps. Such a state of things is of course rather ridiculous, and is the outcome again of a rigid adherence to the grid-iron system of planning where it is not applicable, and does not consort with the local circumstances. It should not be difficult to frame an ordinance which will meet such cases without inflicting hardship on anybody, and this would undoubtedly do as much for the beautification as well as the convenience of your city as anything of the kind could possibly do. Such an ordinance should distinguish between main traffic routes and non-traffic roads, and might allow greater latitude in the case of the latter than in the more important thoroughfares.

Another matter, which has both an æsthetic and a practical side, is the arrangement of your service lines, such as telephone, telegraph, and power cables, which at present do so much to disfigure your City. Your community is so rapidly growing that it is not possible for you to spare the money to build the expensive conduits which older towns in Great Britain can provide for their public services, at least in any but the most central areas, and the only practical alternative which is available is to keep them out of sight as much as possible. The obvious way to do this is to arrange that, except where they must cross the main streets they shall be kept entirely in the lanes, but a great deal may also be done by insisting on a more tidy and orderly system of wiring, and the provision of symmetrically shaped poles painted some uniform shade, or neatly blacked, as they are in the Old Country. The wires and cables themselves will not be much noticed if this point is attended to. It is their appearance of scrambling and hurried inefficiency which is so bad, and which makes them such an eyesore, and a little neatness will make a wonderful difference.

Your Albertan Town Planning Act makes reference to the question of valuations for expropriation, but if we may be allowed to say so, we think that rather fuller powers still might have been given you in this direction. We feel that there is too much loop-hole for the charging of exorbitant prices for land immediately it is realised that it will be wanted for the public good, and it may be necessary to arrive at some system of valuation which will settle the amount to be paid automatically, either in relation to the rateable value or otherwise.

We may finally sum up the financial and legal requirements of the scheme somewhat as follows :—

Firstly.—An examination of the legislative acts and powers you possess for assisting in the adoption and execution of a city plan, especially the code of ordinances or enactments controlling the construction of streets and all erections abutting on them. Having done this, it will be necessary to inquire into the question : How far will extra legislation be required, and what direction can it reasonably take ?

Secondly.—A comparative estimate of the work involved in the scheme, divided up into :—

- (a) The proportion which would entail no expenditure beyond administration charges.
- (b) The expenditure which would produce revenue and which, therefore, would not be a tax upon the city's resources.
- (c) The works, such as parks and boulevards, which, though necessary, would not produce revenue.
- (d) The most important of all, a study of those factors in the city's growth which might lead to unnecessary expenditure if allowed to go on unchecked and uncontrolled by such a scheme as this.

Thirdly.—An estimate of the prospective financial resources of the city to meet all the classes of charges named above, whether remunerative or unremunerative.

Fourthly.—The order in which the approved work could be carried out, and the disposition of your available funds, so as to make the most of each opportunity as it occurs.

The above rapid statement of the nature of your task speaks more or less for itself, and we would only add that under the heading of " Productive Expenditure " may be included every revenue-producing municipal enterprise, such as street railways, markets, abattoirs, and the

auditorium, together with any municipal housing undertaking you may consider it possible and necessary to undertake. On the other hand, the expenditure on parks, gardens, promenades, and bridges, though not immediately revenue producing, may eventually prove the best investment of all, especially as Calgary must gain enormously by the acquisition of its parks and river banks, and by attention to afforestation and the provision of beautiful automobile runs, recreation grounds and children's playfields. The provision of all these facilities will, of course, have a direct money value if they result in making Calgary a pleasant place of residence for those with considerable means, and such institutions as your University will gain by being able to attract a better class of Professor, and to retain him when secured. For this reason, as well as the more obvious ones, money spent on the provision of museums, art galleries, and such like institutions, cannot altogether be considered as having been expended on luxuries, though it may not be possible to do much in this direction until some of your more immediate and pressing needs are fulfilled. Still, on either side of the approaches to the Fourth Street West Bridge over the Bow River, and on Prince's Island (Figs. 9 and 26), we have ventured to show sites for such buildings, and we have been encouraged to do this by the knowledge that the nucleus of a splendid natural history collection is already in existence, and is being added to daily by Doctor Sisley and his committee, thus showing that you already possess a very strong body of opinion in favour of these more advanced facilities.

Finally, I would say, we have shown nothing on our plans, and we have set before you no tasks which are not eminently practicable. Other towns and cities have attacked and conquered greater problems than any of those which face you at the present time. Where we propose the demolition of a few Chinese shacks to make way for your Civic Centre, Cardiff and Exeter are clearing away old and valuable buildings, including even churches, to make such a centre possible, and where we have shown diagonal routes carved through a collection of shacks and other property which cannot have a life of more than twenty years, London has driven Kingsway* through half a mile of the most densely populated area in the world, and even provincial towns like Hull and Sheffield have undertaken street widenings which involve much more work than would have been necessary had we proposed to you that you should widen Eighth Avenue to double its present breadth from end to end.

Beware particularly of the man, who, abrogating to himself all claim to be considered practical, has no imagination and considers any money spent on achieving beauty as waste. "Beware of those," says Ruskin, "who are always crying 'Utopianism'." It is one of the Devil's pet words. Cast it out of your dictionary altogether, there is no need for it. Things are either possible or impossible, you can determine which in any human or social state."

* The estimated cost of the Kingsway scheme was £4,866,000, or, say, \$24,330,000.00 (London Traffic Commission's Report, Vol. I., Clause 31).

APPENDICES.

APPENDIX A.

MESSRS. MAWSON & SONS,
HIGH STREET HOUSE,
LANCASTER.

FROM THE OTIS ELEVATOR COMPANY, LTD.,
4, QUEEN VICTORIA STREET,
LONDON.

GENTLEMEN,

Your favour of 10th inst. came duly to hand, and we regret that combination of circumstances prevented earlier reply.

Consideration given has been on the basis of trailer not being carried, but loaded car only. From the letter enclosed with yours of 9th inst., it might be inferred that loaded car and trailer would have to be carried, which is a much bigger and more costly proposition. Mr. Mawson, Senr., when we met at Liverpool, stated that it might be car only would have to be lifted. As we must necessarily assume certain conditions and do not know how many car or passenger elevators will be required (although we assume you would certainly have to install more than one of each), it will doubtless be understood that we are only figuring approximately.

We will assume that the electric street car weighs 38,300-lbs., and that the seating capacity will be 49 people at 150-lbs., say, 7,500-lbs., and that the elevator would have to handle a total weight of 45,800-lbs. We will assume further :—

Length of car overall, 46-ft. 11-in.,
Requiring platform about 50-ft. by 12-ft.,
Speed of elevator car, 150-ft. per minute,
Rise, 120-ft.,

making trip from start to stop, say, about one minute.

The cost of an electric elevator, supplied and erected to meet the conditions just stated, would be approximately \$46,000—(forty-six thousand dollars). This figure should be multiplied by the number of elevators required, i.e., is for one elevator only. The approximate estimate covers the elevator proper complete, but not the foundations nor the steel structure nor enclosure to same at the serving levels or other protection in the nature of the gates, etc. The estimate also assumes that proper supply of direct current would be furnished by you or others at the motor room.

It might be suggested to make one machine operate two elevator platforms, raising one car and lowering another, and so reducing the amount of power required. We have not figured upon a proposition of this kind, because better service would be given by using two elevators with independent hoisting machines, because in case of breakdown one or the other could be in service, whilst with double platform scheme, both platforms would be out of service in case of breakdown of the hoisting machine. Moreover, the double platform arrangement would introduce certain other troubles in regard to landings due to stretching of ropes, etc.

Coming now to passenger elevator service, figuring upon a capacity of 25 persons at a speed of 250-ft. per minute, the approximate cost of a single elevator, erected, but with the same exclusions as before, would be \$7,500—(seventy-five hundred dollars). This figure would require to be multiplied by the number of elevators required.

The heaviest capacity elevators that we have installed on this side of the Atlantic are mentioned in our letter of August 26th. They doubtless have elevators of equal capacity to these we have mentioned in the U.S.A., but we are unable to say just where. We, however, understood from Mr. Mawson, Senr., when we met him with Mr. E. Prentice Mawson, at Liverpool, that he would, whilst on the other side, communicate with the Otis Elevator Company of New York or Otis-Fensom Company, Toronto, and, inasmuch as we think the U.S.A. may be fairly termed the home of the elevator industry, we think that his doing so would facilitate negotiations. The foregoing data is based on information supplied to us from New York, and we think it is understood that the elevator apparatus is designed and would be manufactured in America, so that here are additional reasons making it advisable for the direct communication suggested. We need hardly say, however, that we will be very glad to do all we can at this end on hearing further from you.

Yours truly,

APPENDIX B.

SUMMARY OF MANCHESTER AREA.

Roads and lanes	60½ acres.
School sites	2 „
Hostel sites	3½ „
Recreation grounds	16 „
Playgrounds	1½ „
Boulevards	4½ „
	<hr/>
	88 „
Area of lay-out	220 „
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Leaving 132 „ available for other
building plots to the number of 1,200, giving an average area of 530 square yards per plot, or 9 plots to the acre exclusive of roads.

The actual area of macadam roads and side-walks we consider necessary is 37 acres, as against 72 acres required in the form of development hitherto adopted, being an actual saving of 48 per cent.

SUMMARY OF CONNAUGHT AREA.

Roads and lanes	24 acres.
Allotment gardens	5½ „
Parks and gardens	8½ „
Churches and schools	4 „
	<hr/>
	42 „
Area of site	80 „
	<hr/>

Leaving 38 „ available for other
building plots to the number of 548, and giving an average area of 340 square yards per plot, or 14 plots to the acre exclusive of roads. The area of macadam roads and side-walks is 14 acres, as against 26 acres required in the form of development now adopted, showing a saving of 40 per cent.

APPENDIX C.

BILL

No. 85 of 1913.

An Act Relating to Town Planning.

(Assented to March 25th, 1913).

HIS MAJESTY, by and with the advice and consent of the Legislative Assembly of the Province of Alberta, enacts as follows :

1. A town planning scheme may be prepared in accordance with the provisions of this Act with respect to any land which is in course of development or appears likely to be used for building purposes, with the general object of securing suitable provision for traffic, proper sanitary conditions, amenity and convenience in connection with the laying out of streets and use of the land and of any neighboring lands for building or other purposes.

Preparation and approval of Town Planning Scheme.

(2) The term "Local Authority" as hereinafter used in this Act, shall mean any City or Town Council of any regularly incorporated city or town or the Municipal Council of any Municipality in the Province of Alberta, and the term "Minister" as hereinafter used in this Act shall mean the Minister of Municipal Affairs of the Province of Alberta.

Local authority and Minister defined.

(3) Any local authority may make application to the Minister for authority to put into effect a town planning scheme or any part thereof and the Minister may authorize a local authority to prepare and put into effect a town planning scheme or any part thereof with reference to any land within or in the neighborhood of the area over which it has municipal control, if the local authority satisfies the Minister that there is a *prima facie* case for making such a scheme, or the Minister may authorize a local authority to adopt with or without modifications any such scheme or any part thereof, proposed by all or any owners of land, with respect to which the local authority might itself have been authorized to prepare a town planning scheme.

Application for authority.

(4) The expression "land likely to be used for building purposes" shall include any land likely to be used as or for the purpose of providing open spaces, roads, streets, parks, pleasure or recreation grounds, or for the purpose of executing any work upon or under the land incidental to a town planning scheme, whether in the nature of a building work or not, and the decision of the Minister as to whether land is likely to be used for building purposes, shall be final.

Land defined.

(5) The Minister may authorize the inclusion in a town planning scheme of any land already built upon or any land not likely to be used for building purposes, if it be made to appear to him that such land is so situated that it ought to be included, and may provide for the demolition or alteration of any buildings thereon so far as may be necessary for carrying the scheme into effect.

What land included in scheme.

(6) A town planning scheme prepared or adopted by a local authority shall not have effect unless approved by written order of the Minister, and the Minister may refuse to approve any such scheme except with such modifications and subject to such conditions as he may think fit to impose ; provided that before a town planning scheme can be approved of by the Minister, notice of intention to make application for its approval must have been published in the *Alberta Gazette* of the Province for at least one month, and if within twenty-one days from the publication of such notice, any interested person or authority files notice of objection in the prescribed manner, such objection shall be heard and adjudicated upon by the Minister or by such board or boards of commission as may be appointed by the Minister for the

Approval of Minister necessary.

purposes of hearing and adjudicating upon all or any matters of dispute, which may arise between a local authority or a responsible authority, and other interested parties.

In the event of objections being sustained by the Minister or such Board of Commission as he may appoint for the purpose of adjudicating upon them, no proceedings shall be taken toward carrying part of the scheme so objected to into effect, but this without prejudice to the preparation of a new or modified scheme covering the same area or any part thereof.

(7) A town planning scheme may be varied or revoked by a subsequent scheme prepared or adopted by a local authority or a responsible authority, and approved by the Minister in accordance with the provisions of this Act.

(8) A town planning scheme when approved by the Minister shall have effect as if it were specially enacted in this Act.

2. The authority to be responsible for the carrying out of a town planning scheme, herein referred to as the "Responsible Authority" may be either ;

- (a) The local authority applying for approval of the scheme ;
- (b) Where land included in a town planning scheme is in the area of more than one local authority or in the area of a local authority by whom the scheme was not prepared, the responsible authority may be one of those authorities, or for certain purposes of the scheme it may be one local authority and for certain purposes another local authority, or
- (c) A body constituted specially for the purpose of the scheme as hereinafter provided and all necessary provision may be made by the scheme for constituting such body and giving it the necessary powers and duties.

(2) For the purpose of preparing a town planning scheme and carrying the same into effect, a local authority, or the local authorities, where more than one is interested, may singly or jointly appoint a commission of not less than five, or more than ten members, whose names shall be submitted to the Minister for approval, and upon the approval by the Minister of the scheme, and of the constitution of the commission named therein, the commission thus appointed shall become the responsible authority for carrying the scheme into effect, to whom shall be delegated all the powers conferred by, and for the purposes of this Act upon the local authority.

Vacancies as they occur may be filled from time to time by the local authority or authorities.

(3) The Lieutenant Governor in Council may prescribe a set of general provisions (or separate sets of general provisions adapted for areas of any special character) for carrying out of the general objects of town planning schemes and in particular for dealing with matters set out in the Schedule "A" attached to this Act and the general provisions or separate sets of general provisions appropriate to the area for which the town planning scheme is made, shall take effect as part of every scheme, except so far as special provision is made by the scheme as approved by the Minister, for the variation or the exclusion of any of these general provisions and shall have the same effect as if specially enacted by the Legislature.

(4) Special provisions shall in addition be inserted in every town planning scheme defining in such manner as may be prescribed by regulations under this Act, the area to which the scheme is to apply and the authority which is to be responsible for enforcing the observance of the scheme, and for the execution of any works which under the scheme, or under the Act, are to be executed by the responsible authority, and providing for any matters which may be dealt with by general provisions, and otherwise supplementing, excluding or varying the general provisions and also dealing with any special circumstances or contingencies for which

adequate provision is not made in the general provisions, and for suspending, so far as necessary, for the proper carrying out of the scheme, any enactments, by-laws, regulations or other provisions made by a local authority, which are in operation in the area included in the scheme, and such special provision shall have the same effect as if specially enacted by the Legislature.

(5) Special provision may also be made in every town planning scheme defining the manner in which the funds necessary for the carrying it into effect are to be procured. If no such provision is made in the scheme, funds may be procured in any way authorized for local improvement or general purposes by any public or private act in force in the city, town or municipality affected by the scheme ; provided always that no assessment upon any city, town or municipality shall be authorized by any town planning scheme, without the consent of the local authority in control of the area affected being first had and obtained ; nor shall any power to borrow money either by issue of bonds or otherwise, be conferred upon a responsible authority, by any town planning scheme, except with the approval of the local authority having municipal control of the area affected.

Funds.
How raised.

(6) The Minister may certify any by-laws for contracting debts or incurring liabilities, and for this purpose, sections 190 to 193 inclusive of The Towns Act *mutatis mutandis* are hereby incorporated into and shall be deemed to be part of this Act.

Minister
may
certify
by-laws.

(7) Any expenses incurred in preparing any town planning scheme may be paid out of current revenue by the local authority or out of the proceeds of any special tax levied for part purposes to an amount not to exceed \$20,000 in the case of cities, \$10,000 in the case of towns and \$5,000 in the case of other municipalities.

Preliminary
expenses
may be
paid out of
Current
Revenue.

3. The Minister may make regulations for regulating generally the procedure to be adopted with respect to applications for authority to prepare or adopt a town planning scheme, the preparation of the scheme, obtaining the approval of the Minister to a scheme so prepared or adopted, and any enquiries, reports, notices or other matters required in connection with the preparation or adoption or the approval of the scheme, or preliminary thereto, or in relation to the carrying out of the scheme, or enforcing the observance of the provisions thereof.

Procedure
Regulation.

(2) Provision shall be made by these regulations :

Contents of
Procedure
Regulations.

- (a) For securing co-operation on the part of the local authority with the owners and other persons interested in the land proposed to be included in the scheme at every stage of the proceedings by means of conferences and such other means as may be provided by the regulations ;
- (b) For securing that notice of the proposal to prepare or adopt the scheme should be given at the earliest stage possible to any parties interested in the land ; and
- (c) For dealing with the other matters mentioned in Schedule "B" to this Act ;

Co-operation.

Notices.

General.

4. The responsible authority may at any time, after giving such notice as may be provided by a town planning scheme and in accordance with the provisions of this Act ;

Power to
enforce
scheme.

- (a) Remove, pull down, or alter any building or other work in the area included in the scheme which is such as to contravene the scheme or in the erection, or carrying out of which any provision of this scheme has not been complied with ; or
- (b) Execute any work which it is the duty of any person to execute under the scheme in any case where it appears to any authority that delay in execution of the work would prejudice the efficient operation of the scheme.

Remove
buildings.

Execute
work for
others.

(2) Any expenses incurred by the responsible authority under this section may be recovered from the persons in default in such

Expenses
how
recovered.

manner and subject to such conditions as may be provided by the scheme.

(3) If any question arises whether any building or work contravenes a town planning scheme, or whether any provision of a town planning scheme is not complied with in the erection or carrying out of any such building or work, that question shall be referred to the Minister on such board as he may appoint for the purpose, and, unless the parties otherwise agree, shall be determined by the Minister or such board as arbitrators and their decision shall be final and conclusive and binding on all persons.

Questions arising—how determined.

5. Any person whose property is injuriously affected by the making of a town planning scheme shall, if he makes a claim, for the purpose within the time (if any) limited by the scheme not being less than three months after the date when notice of the approval of the scheme is published in the manner prescribed by regulations made by the Minister, be entitled to obtain compensation in respect thereof from the responsible authority.

Compensation.

(2) A person shall not be entitled to obtain compensation under this section on account of any building erected on or contract made or other thing done with respect to land included in a scheme or after the time at which the application for authority to prepare the scheme has been made, or after such other time as the Minister may fix, for the purpose :

Time for certain compensation.

Provided this provision shall not apply as respects any work done before the date of the approval of the scheme for the purpose of finishing a building begun or of carrying out a contract entered into before the application was made.

(3) Where by the making of any town planning scheme, any property is increased in value, the responsible authority if they make a claim for the purpose within the time (if any), limited by the scheme (not being less than three months after the date when notice of the approval of the scheme is first published in the manner prescribed by regulations made by the Minister) shall be entitled to recover from any person whose property is so increased in value, one-half of the amount of that increase.

Responsible authority entitled to one-half of increased value.

(4) Any question as to whether any property is injuriously affected or increased in value within the meaning of this section, and as to the amount and manner of payment (whether by instalments or otherwise) or the sum which is to be paid as compensation under this section or which the responsible authority is entitled to recover from a person whose property is increased in value, shall be determined by arbitration under the provisions of the *Arbitration Act*, unless the parties agree on some other method of determination.

Arbitration.

(5) Any amount due under this section as compensation to a person aggrieved from the responsible authority, or to a responsible authority from a person whose property is increased in value, may be recovered summarily as a civil debt.

Recovery of compensation.

(6) Where a town planning scheme is revoked by an order of the Minister under this Act, any person who has incurred expenditure for the purpose of complying with the scheme shall be entitled to compensation in accordance with this section in so far as any such expenditure is rendered abortive by reason of the revocation of the scheme.

Compensation where scheme is revoked.

6. Where property is alleged to be injuriously affected, by reason of any provisions contained in a town planning scheme, no compensation shall be paid in respect thereof, if or so far as the provisions are such as would have been enforced if they had been contained in by-laws made by the local authority.

Exclusion of compensation in certain cases.

(2) Property shall not be deemed to be injuriously affected by reason of the making of any provisions inserted in a town planning scheme which, with a view to securing the amenity of the area included in the scheme or any part thereof, prescribe the space about buildings or limit the number of buildings to be erected or

Spaces about buildings and area for parks.

prescribe the height or character of buildings or the amount of vacant land to be taken for parks or open spaces not to exceed five (5) per cent. of the total area and which the Minister having regard to the nature and situation of the land affected by the provisions consider reasonable for the purpose.

(3) Where a person is entitled to compensation under this part of this Act in respect to any matter or thing, and he would be entitled to compensation in respect to the same matter or thing, under any other enactment, he shall not be entitled to compensation in respect of that matter or thing both under this Act and under that other enactment, and shall not be entitled to any greater compensation under this Act than he would be entitled to under the other enactment.

No double compensation.

7. The responsible authority may, for the purpose of a town planning scheme, purchase any land comprised in such scheme by agreement, or compulsorily in the same manner and subject to the same provisions as a local authority may purchase under any local or public Act.

May purchase or expropriate.

(2) In the event of compulsory purchase, the arbitrators or arbitrator in deciding on values or compensation shall take into consideration the increased value that will be given to any lands by the scheme, or by reason of the enforcement thereof and shall set off such increased value that will attach to such lands or grounds against the inconveniences.

Increased value not paid for.

8. If the Minister is satisfied on any representation, after holding a public enquiry that a local authority :

Powers of Minister in case of default of local authority to make or execute a town planning scheme.

- (a) Have failed to take the requisite steps for having a satisfactory town planning scheme prepared and approved in a case where a town planning scheme ought to be made ;
- (b) Having failed to adopt a scheme proposed by owners of any land in a case where a town planning scheme ought to be adopted, or
- (c) Have unreasonably refused to consent to any modification or conditions imposed by the Minister, the Minister may, as the case requires, order the local authority to prepare and submit for his approval, such a town planning scheme, or to adopt the scheme or to consent to the modifications or conditions so inserted :

Provided that, where the representation is that a local authority have failed to adopt a scheme, the Minister, in lieu of making such an order as aforesaid, may approve the proposed scheme subject to such modifications or conditions, if any, as he thinks fit, and thereupon the scheme shall have effect as if it had been adopted by the local authority and approved by the Minister.

(2) If the Minister is satisfied on any representation after holding an inquiry, that a responsible authority has failed to enforce effectively the observance of a scheme which has been confirmed, or any provisions thereof, or to execute any works, which under the scheme or this Act, the authority is required to execute, the Minister may order that authority to do all things necessary for enforcing the observance of the scheme or any provisions thereof effectively, or for executing any works which under the scheme or this part of this Act the authority is required to execute.

Minister may enforce observance of scheme.

(3) Any order under this section may be enforced by mandamus.

Mandamus.

9. Any expenses incurred by the Minister under this Act, including the payment of any Board or Commission shall be paid out of any funds appropriated from the General Revenue Fund to the Department of Municipal Affairs for that purpose.

Expenses of administering Act.

10. This Act may be cited as "The Town Planning Act."

How cited.

SCHEDULE A.

MATTERS TO BE DEALT WITH BY GENERAL PROVISIONS PRESCRIBED BY THE MINISTER.

1. Streets, tramways, roads and other ways, and stopping up or diversion of existing highways.
2. Buildings, structures and erections.
3. Open spaces, private and public.
4. The preservation of objects of historical interest or natural beauty.
5. Sewerage, drainage and sewerage disposal.
6. Lighting.
7. Water supply.
8. Ancillary or consequential works.
9. Extinction or variation of private rights of way and other easements.
10. Dealing with or disposal of land acquired by the responsible authority or by a local authority.
11. Power of entry and inspection.
12. Power of the responsible authority to remove, alter or demolish any obstructive work.
13. Power of the responsible authority to make agreements with owners, and of owners to make agreements with one another.
14. Power of the responsible authority or a local authority to accept any money or property for the furtherance of the objects of any town planning scheme, and provision for regulating the administration of any such money or property.
15. Application with necessary modifications and adaptations of statutory enactments.
16. Carrying out and supplementing the provisions of this Act for enforcing schemes.
17. Limitation of time for operation of scheme.
18. Co-operation of the responsible authority with the owners of land included in the scheme or other person interested by means of conference and other means.
19. Charging on the inheritance of any land the value of which is increased by the operation of a town planning scheme the sum required to be paid in respect to that increase and for that purpose applying with the necessary adaptations, the provisions of any enactments dealing with charges for improvements of land or making special provisions to govern the same.

SCHEDULE B.

1. Procedure anterior to and for the purpose of an application for authority to prepare or adopt a scheme.
 - (a) Submission of plans and estimates.
 - (b) Publication of notices.
2. Procedure during, on, and after the preparation or adoption and before the approval of the scheme.
 - (a) Submission to the Minister of the proposed scheme with plans and estimates.
 - (b) Notice of submission of proposed scheme to the Minister.
 - (c) Hearing of objections and representations by persons affected, including persons representing architectural or archæological societies or otherwise interested in the amenity of the proposed scheme.
 - (d) Publication of notice of intention to approve scheme and the lodging of objections thereto.
3. Procedure after the approval of the scheme.
 - (a) Notice to be given of the approval of the scheme.
 - (b) Inquiries and reports as to beginning and the progress and completion of works and other action under the scheme.

4. Duty, at any stage, of the local authority to publish or deposit for inspection any scheme, or proposed scheme, and the plans relating thereto, and to give information to persons affected with reference to any such scheme or proposed scheme.

5. The details to be specified in plans, including wherever the circumstances so require, the restrictions on the number of buildings which may be erected on each acre, and the height and character of these buildings.

